Hydroacoustic Herring Survey Results and Trawl Catches from Hecate Strait, November 26 to December 12, 1985. *G.B. REED* Cruise GBR85E and *M.V. SUNNFJORD* Cruise SUN85-1

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HYDROACOUSTIC HERRING SURVEY RESULTS AND TRAWL CATCHES FROM HECATE STRAIT, NOVEMBER 26 TO DECEMBER 12, 1985. G.B. REED CRUISE GBR85E AND M.V. SUNNFJORD CRUISE SUN85-1.

by

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ABSTRACT

McCarter, P. B., R. Kieser, D. E. Hay and D. C. Miller. 1987. Hydroacoustic herring survey results and trawl catches from Hecate Strait, Nov. 26 to Dec. 12, 1985. G.B. REED cruise GBR85E and M/V SUNNFJORD cruise SUN85-1. Can. MS Rep. Fish. Aquat. Sci. 1940: 131 p.

Northern coastal waters where herring overwinter off Porcher Island and SE Moresby Island were surveyed hydroacoustically to estimate herring abundance and distribution patterns. Total midwater biomass estimates for herring were 32,000 tonnes on the northern mainland side of Hecate Strait and 9,500 tonnes off SE Moresby Island. Repeated hydroacoustic soundings over a 24-h period showed that vertical and perhaps shoreward movements of herring during dark hours resulted in lower estimates as fish moved out of the echo integration zone. During daylight hours, herring located near or on very irregular sea bottom could not be acoustically estimated because of bottom echo interference. Vessel avoidance, species compositions of trawl and bongo net catches, stomach contents and size and age distributions of herring were also examined. Oceanographic data were collected at eight hydrographic and plankton stations.

Key words: Pacific herring, Hecate Strait, hydroacoustic, abundance, estimate, trawl, survey

RESUME

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Les eaux côtières septentrionales où ie hareng hiverne au large de l'île Porcher et du littoral sud-est de l'île Moresby ont fait l'objet d'un relevé hydroacoustique afin de déterminer leur abondance et leur répartition. Selon les estimations de la biomasse mésopélagique totale, il y a 32,000 t de hareng dans les eaux septentrionales du détroit d'Hécate baignant la terre ferme et 9,500 t au large du littoral sud-est de l'île Moresby. Des relevés hydroacoustiques répétés pendant 24 h one révélé que les déplacements verticaux et peut-être la migration vers les eaux côtières pendant la nuit expliquent ces faibles valeurs étant donné que le hareng avait quitté la zone d'intégration échographique. Pendant le journée, l'estimation acoustique des concentrations de hareng situées près du fond ou sur des fonds très accidentés n'était pas possible à cause de l'interférence échographique du fond. On a aussi examiné la réaction d'évitement du navire, la composition spécifique des prises au chalut et au filet bongo, les contenus stomacaux et les distributions selon l'âge et la taille. De plus, on a recueilli des données océanographiques à huit stations d'échantillonnage planctonique et hydrographique.

Mots-clés: hareng du Pacifique, détroit d'Hécate, hydroacoustique, abondance, estimation, chalut, relevé

INTRODUCTION

The primary objective of this survey was to examine the feasibility of obtaining hydroacoustic estimates of Pacific herring (Clupea harengus pallasi). The second objective was to identify and confirm sites where herring concentrate to overwinter prior to moving into shallower water for spawning. Joint operations were conducted by the hydroacoustic survey vessel, G.B. REED and the chartered fishing trawler, SUNNFJORD, from November 26 to December 12, 1985. Restricting surveys to the major winter herring concentrations reduces the area to be searched and simplifies species identification of hydroacoustic targets. Aggregations of other midwater fish species in these herring overwintering areas are minimal and plankton abundance is low. Midwater and bottom tows were made by the M/V SUNNFJORD to verify the identity of major hydroacoustic targets and assign species composition fractions where necessary. Herring biomass estimates obtained from this survey should not necessarily be regarded as precise. Rather, they represent the best available hydroacoustic estimates in view of the dynamic behaviour of herring, the time available, often difficult weather conditions and limitations of equipment. These herring estimates are compared with other stock estimates based on spawn surveys and analyses of catch and age structure (Haist et al. 1987).

Information from this survey also contributes to the Hecate Strait Project in which the overall objective is to map multispecies fish assemblages and develop an ecological basis for mixed-species assessment and management techniques. A schedule of the G.B. REED's activities is located in Appendix table 1. This report describes vessel activities including hydroacoustic transects, tows and hydrographic stations. It also summarizes hydroacoustic fish density estimates, catch compositions, biological samples and oceanographic data.

METHODS

Three hydroacoustic projects were conducted during the cruise: (i) an extensive coverage of major herring overwintering grounds was accomplished by sounding Loran C transect patterns based on previous Hecate Strait cruises (McCarter and Hay 1985; McCarter et al. 1986; Kieser et al. 1986). These areas included Juan Perez Sound, Selwyn and Cumshewa Inlets, SW Bonilla Island, Browning Entrance, Kitkatla Inlet, lower Chatham Sound and Butterworth Edge; (ii) an intensive survey was accomplished in Browning Entrance by repeating transects during a 24 hour period to monitor diurnal herring migrations (iii) vessel avoidance by herring was investigated using the sounding equipment of two vessels.

VESSELS AND EQUIPMENT

The hydroacoustic equipment on the G.B. REED was configured for echo integration and was essentially unchanged from the preceding herring cruise (Kieser et al. 1986). Its major components are a BioSonics echo sounder and integrator and a Simrad chart recorder. The 8 by 13 degree, 38 kHz ceramic transducer was mounted in a torpedo shaped body which was towed behind the vessel to minimize interference. A PDP 11/23 computer was used to analyse the data. The echo sounder and transducer were calibrated at the hydroacoustic barge of the University of Washington, Seattle. A fish target strength of -32.0 dB/kg was used to convert the measured backscattering strength to fish density estimates. Biomass estimates were obtained by expanding the surface density over the area of interest.

The M/V SUNNFJORD is a 25.6 m wooden trawler powered by a 425 HP Caterpillar engine and equipped with bottom and midwater trawl gear. A midwater Dantrawl model 25-22-1600 with an Elac net sounder and 3.4 m^2 Superkrub doors was used for most tows. The 110-m sweeplines, 130 kg chain weights and unique bridle arrangement contributed to a 22-23 m effective net opening. Fishing instruments in the wheelhouse included dry and wet paper sounders (Elac and Ekolite), an Internav Loran C, an Epsco plotter and two Wesmar sonars. Catches were brought aboard, sorted by species into tubs and weighed to the nearest kilogram. Samples were transferred to the G.B. REED for freezing or processing. Species compositions from midwater tows were applied to midwater hydroacoustic biomass estimates after echograms from both vessels were closely examined.

HERRING SAMPLES

Scales for age determinations were removed from 100 herring in each sample. Herring standard length was measured to the nearest millimeter, fish weights and gonad weights to the nearest gram, and sex and maturity were determined whenever possible. Herring stomachs were injected through the body cavity with 10 percent formalin and the herring frozen. Stomachs were later examined for contents using the same methods as in a previous summer Hecate Strait survey (McCarter et al. 1986).

PLANKTON TOWS

Oblique plankton tows were conducted with a 0.25 m^2 Bongo with 350 µm black Nitex nets of modified SCOR design. General Oceanic flowmeters with low speed rotors were used to measure the volume of seawater filtered. Depth of tows varied from 56-100 m and bottom depths at stations were 80-280 m. Tows lasted 6-22 minutes at vessel speeds of 2 knots. Cable descent rates were 50 m/min and the ascent rates were 20 m/min. Recovered nets were washed

with a high pressure hose and samples preserved in 10 percent buffered seawater formalin.

HYDROGRAPHIC STATIONS

Expendable bathythermograph (X.B.T.) casts were conducted at eight stations and seven vertical plankton hauls were completed using a 0.25 m^2 SCOR net with a 350 µm black Nitex mesh.

RESULTS AND DISCUSSION

HYDROACOUSTIC SURVEYS

Calculated biomass estimates in metric tonnes (t) are shown in detail for all transects and transect groupings (Appendix table 2). Most parallel transects were 1.85 km (1.0 nm) apart and based on Loran C lines. Single transects were assumed to have a width of 1.0 nm for most area calculations. Surface density maps were plotted from selected transects. The transects are shown in figures as dotted lines, verticals to the transects indicate density on a logarithmic scale. A range from .001 kg/m2 to .1 kg/m^2 is used and the maximum range is indicated by a dot. These estimates include all species in the echo integration zone and are based on an acoustic fish target strength of -32.0 dB/kg. The echo integration zone includes the entire water column excepting 5 m from the bottom and 20 m to the surface. These depth strata were not integrated to avoid surface interference and bottom echo integration.

(i) Survey Areas

Three major overwintering herring concentrations were assessed. Juan Perez Sound night transects J1-J9 comprised an area of 101.1 km^2 with an estimate of 4,980 t (Figs. 1a-c). SW Bonilla transects H22-H37 comprised an area of 348.5 km^2 with a total biomass estimate of 11,079 t (Fig. 2). Browning Entrance transects 13-29 comprised an area of 398.4 km^2 with a total biomass estimate of 17,300 t (Figs. 3a-b). Areas adjacent to these three localities were also surveyed and some transects repeated (Table 1).

Biomass estimates could not be obtained from Juan Perez Sound during daylight hours because herring were close to the bottom of this deep and narrow Sound with steep sloping sides. Under these circumstances, herring schools cannot easily be distinguished from bottom echoes. An estimate was obtained at night, however, by setting the depth strata window at 20 to 80 m where the major schools were skimmered.

(ii) Twenty-four hour surveys

Two, 24-hr surveys were conducted in the Browning Entrance area to examine how diurnal movements of herring effect biomass estimates. Six long transects (23-28) and eight short transects (19S-26S) were chosen (Figs. 4a-d,5a-d). Short transects covered only the shoreward ends of the survey area due to time restraints. The transects were repeated 4 times over a 24-hr period. Biomass estimates were made each time (Table 2). A particularly low estimate was obtained during the 0000-0600 hr period because herring moved out of the echo integration zone. Surface and perhaps shoreward movements of herring were probable reasons. Groundfish species may have comprised part of the 478 t detected near the bottom. The highest estimates of both 24 hr surveys were obtained during the 0600-1200 hr period with slightly lower estimates during the 1200-1800 hr and 1800-2400 hr periods.

(iii) Vessel avoidance study

Eight transects (22-29) were selected in the Browning Entrance area to examine the effect of vessel passage on biomass estimates. The charter vessel, SUNNFJORD alternately followed and led the G.B. REED by 0.25 nm at a speed of 8 knots. Vessel position changes took place at the ends of each transect. Echograms by both vessels and biomass estimates by the G.B. REED were examined during the 1300-2000 hrs survey period (Table 3). No obvious differences could be detected related to vessel positions. This indicates that the hydroacoustic estimates in winter probably are not affected by the survey vessel. Fish schools appeared at the same positions and depths and biomass estimates did not appear to be affected.

TRAWL CATCH DATA

Twenty midwater tows and two bottom tows were completed by the M/V SUNNFJORD (Fig. 6). The species composition of the total catch is presented in Table 4 and scientific names of species are listed in Table 5. Tables 6 and 7 list trawl catches by tow.

Seven of the fifteen midwater catches in the Browning Entrance and SW Bonilla Island areas were composed entirely of herring. Only smaller herring catches less than 500 kg contained other species including chum and chinook salmon, rockfish, dogfish and shiner perch. Midwater biomass estimates of the Browning Entrance (17,300 t) and SW Bonilla (11,079 t) areas were therefore considered to be primarily herring. Two bottom tows yielded a variety of groundfish species.

In southern Chatham Sound two midwater tows yielded 89 percent pollock, 9% dogfish and 2% herring and eulachon. Also, the echogram patterns from both vessels suggested that the 3,000 t estimated in southern Chatham Sound was primarily pollock.

Three midwater tows in Juan Perez Sound yielded 76% herring, 13% pollock and 11% dogfish. During the night survey of Juan Perez Sound, pollock and dogfish schools were identified on echograms below the selected herring echo integration depth strata (20-80 m) and were excluded from the biomass estimate. Herring were therefore considered to comprise the entire 4,980 t estimated in Juan Perez Sound.

SAMPLING DATA

Eighteen herring samples were collected from 22 trawl tows. Age composition, mean length-at-age and mean weight-at-age data are presented in Table 8. Juvenile herring (1-2 years) predominated in samples from tows 5, 12, 13, 14 and 15. Age 5 fish predominated in all other samples collected. The contents of 150 herring stomachs from tows 2, 3 and 7 were examined microscopically. Most stomachs were near empty with small quantities of euphausiids, Thysanoessa spinifer and Euphausia pacifica and amphipods, Parathemisto sp. One hundred dogfish stomachs from Browning Entrance tow 10 were examined macroscopically. Sixty-five stomachs were empty, 14 contained 8-24 cm herring and 21 contained other species including squid, pollock, shiner perch, anchovy, flathead sole and poachers.

Thirteen bongo samples were collected and 71 fish larvae were separated by family, counted and standard length measured to the nearest 0.2 mm using an ocular micrometer. Larval identifications were assisted by drawings and descriptions (Garrison and Miller 1982). Relative abundance estimates of fish larvae from single tows ranged from 0 to 127 larvae per 1,000 m^3 of seawater filtered. Mean lengths and numbers of fish larvae collected are summarized in Table 9 and locations of bongo tows are shown in Figure 7.

SEAWATER TEMPERATURES

Seawater temperatures determined by expendable bathythermograph averaged 6.9°C at the surface and 6.3°C at the bottom. Table 10 shows seawater temperatures at hydrographic stations (Fig. 8).

COMPARISON OF HYDROACOUSTIC ESTIMATES WITH OTHER BIOMASS ESTIMATES

The estimated herring biomass in the Juan Perez/Skincuttle area, calculated from spawn surveys and analyses of age structure respectively, were estimated (Table 11) at between 8,000 t (4,400 t spawners plus 3,600 t catch) and 21,300 t (17,700 t spawners plus 3,600 t catch) by Haist et al, 1987. This is an unusually large discrepancy between the two methods, although the

age structure estimate usually exceeds that based on spawn. The hydroacoustic biomass estimate was 4,980 t in the nearshore waters of Juan Perez plus another 1,250 t in waters further offshore, for a total of 6,230 t. Further, an additional 3,182 t were sounded in Selwyn and Cumshewa Inlets, a location which is usually accounted for separately. Spawn survey estimates in that location estimated 1,500 t spawners. The hydroacoustic estimates are intermediate between those using age and spawn analyses.

Hydroacoustic biomass estimates were made in four different locations in the Prince Rupert District (Table 1): (1) 11,079 t off SW Bonilla Island, (2) 524 t in Kitkatla Inlet, (3) 3,000 t in Chatham Sound and (4) 17,300 t in the Browning Entrance area. The total biomass from these surveys is 31,903 t. In contrast, the estimate based on spawn analyses was 32,800 t (24,300 t spawners plus 8,500 t catch). Age structure analyses estimates were 38,000 t (29,500 t spawners plus 8,500 t catch). Therefore, the hydroacoustic biomass estimates are reasonable when compared to those made using other methods.

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REFERENCES

Garrison, K. J. and B. S. Miller. 1982. Review of the early life history of Puget Sound fishes. Nat. Marine Fish. Service (NOAA) Seattle, Washington.

Haist, V., J. Schweigert, and M. Stocker. 1987 (In press). Stock Assessment for British Columbia herring in 1986 and forecasts of the potential catch in 1987. Can. Tech. Rep. Fish. Aquat. Sci.

Hart, J. L. 1973. Pacific fishes of Canada. Fish. Res. Board Can. Bull. 180.

Kieser, R., D. E. Hay, C. W. Haegele, D. C. Miller, and T. J. Mulligan. 1986 (In press). Hydroacoustic herring survey results and trawl catches from Hecate Strait, Oct. 15 to Nov. 5, 1984. G.B. REED cruise GBR84C and M. V. CANADIAN #1 cruise CAN84-1. Can. Data Rep. Fish. Aquat. Sci.

McCarter, P. B., C. W. Haegele, D. C. Miller, and D. E. Hay. 1986. Hecate Strait herring survey July 22 - August 8, 1985 G.B. REED Cruise 85-8. Can. Data Rep. Fish. Aquat. Sci. 615: 35 p.

McCarter, P. B. and D. E. Hay. 1985. Herring Survey off Queen Charlotte Islands and Hecate Strait January 15-31, 1985. Can. Data Rep. Fish. Aquat. Sci. 543: 39 p.

Table 1. Hydroacoustic surveys of G. B. REED cruise 85E, November 26-December 12, 1985.

Location	Transect sequence numbers	Transect names	Area (km^2)	Depth of fish (m)	Biomass Estimates (t)		Time (PST)	Date (D/M/Y)
					Initial	Repeated		
Juan Perez Sound - Night	12-28	J1-J9	101.1	45.1	4,980	-	2257-0315	28-29.11.85
Juan Perez Sound - Day	30-46	J1-J9	98.1	161.9	-	No est.	1013-1425	29.11.85
Juan Perez offshore	4-10	A-D	620.8	56.0	1,250	-	1603-2221	28.11.85
	56-62	F-L					1719-2125	29.11.85
Selwyn & Cumshewa - coverage 1	64-73	S1-S5	174.9	113.9	3,182		0917-1313	30.11.85
	79-88	S6-S16					1313-1857	
Selwyn & Cumshewa - coverage 2	74-76	S6R-S8	102.1	94.3	-	897	1407-1457	30.11.85
	89-95	S17-S23					1857-2138	
SW Bonilla - coverage 1	125-139	H30-H37	348.5	91.7	11,079	-	1006-1316	01.12.85
		H22-H28					1521-1911	
Browning Entrance - short 22-29	142-156	22-29	106.4	76.2	-	1,070	0950-1415	02.12.85
Kitkatla Inlet - coverage 1	216-220	K1-K5	36.3	53.4	-	437	1240-1402	04.12.85
Kitkatla Inlet - coverage 2	222-226	K1-K5	36.3	55.1	524	-	1431-1534	04.12.85
Chatham Sound South	228-241	C1-C13	174.8	79.7	3,000	-	1249-1830	05.12.85
Browning Entrance - long 13-23	242-262	13-23	227.9	82.0	-	1,450	1125-2005	06.12.85
Butterworth Edge	270-300	30-55	355.4	61.9	177	-	2303-0956	06-07.12.85
Browning Entrance - long 13-29	305-338	13-29	398.4	57.6	17,300	-	1252-0510	08-09.12.85
SW Bonilla - coverage 2	340-352	N25-N37	125.5	83.4	-	1,030	0541-1007	09.12.85
Total areas					41,921	No est.		

Table 2. Twenty-four hour hydroacoustic surveys of G. B. REED cruise 85E, November 26-December 12, 1985.

Location	Transect sequence numbers	Transect names	Area (km^2)	Depth of fish (m)	Biomass estimates (t)	Time (PST)	Date (D/M/Y)
Long Transects							
Browning Entr. long - coverage 1	201-205 158-164	23-24 25-28	132.2	77.3	5,920	1200-1400 1500-1800	04.12.85 03.12.85
Browning Entr. long - coverage 2	165-176	23-28	135.6	43.2	3,840	1800-2400	03.12.85
Browning Entr. long - coverage 3	177-189	23-28	135.6	76.4	478	0000-0600	04.12.85
Browning Entr. long - coverage 4	190-200	23-28	135.6	76.9	6,900	0600-1200	04.12.85
Short Transects							
Browning Entr. short - coverage 1	364-382	19S-26S	56.3	62.1	191	1630-2052	09.12.85
Browning Entr. short - coverage 2	383-398	19S-26S	56.8	92.8	154	2140-0023	09-10.12.85
Browning Entr. short - coverage 3	403-418	19S-26S	56.9	85.3	218	0517-0801	10.12.85
Browning Entr. short - coverage 4	419-433	19S-26S	56.9	81.5	287	0844-1133	10.12.85

Table 3. Vessel avoidance study of G. B. REED and SUNNFJORD, Browning Entrance, December 8, 1985.

Transect			Depth of fish	Biomass estimate	Vessel position[a]	Time
Sequence no.	Name	Length (M)	(m)	(t)		(PST)
305	29	4.9	30.7	29	F	1252
307	28	6.0	63.6	13	L	1336
309	27	5.6	66.6	1,720	F	1429
311	26	6.2	62.1	566	L	1519
313	25	6.5	88.4	1,510	F	1612
315	24	6.5	47.6	3,690	L	1715
317	23	7.0	58.2	451	F	1816
319	22	7.1	88.2	461	L	1919

[a]F = M/V SUNNFJORD follows G. B. REED
L = M/V SUNNFJORD leads G. B. REED

Table 4. Total catch by principal species of M/V SUNNFJORD, November 26-December 12, 1985.

Species	Catch (kg)	Percent of total catch
Pacific herring	27,428	86.9
Walleye pollock	1,775	5.6
Spiny dogfish	1,007	3.2
English sole	431	1.4
Yellowfin sole	318	1.0
Starry flounder	126	0.4
Arrowtooth flounder	73	
Pacific cod	62	
Chum salmon	54	
Rex sole	36	
Petrale sole	24	
Eulachon	23	
Ratfish	21	
Sablefish	20	
Longnose skate	19	
Chinook salmon	14	1.5
Pacific hake	13	
Yellowtail rockfish	10	
Flathead sole	10	
Lingcod	8	
Bocaccio rockfish	8	
Big skate	7	
Sand sole	6	
Pacific tomcod	2	
Shiner perch	2	
Widow rockfish	2	
Squid	70	
Euphausiids	Tr	
Total	31,569	100.0

Table 5. Scientific and common names of species captured.

Common name	Scientific name[a]
Spiny dogfish	Squalus vulpinus
Big skate	Raja binoculata
Longnose skate	Raja rhina
Ratfish	Hydrolagus colliei
Pacific herring	Clupea harengus pallasi
Chum salmon	Oncorhynchus keta
Chinook salmon	Oncohynchus tshawytscha
Eulachon	Thaleichthys pacificus
Pacific cod	Gadus macrocephalus
Pacific hake	Merluccious productus
Pacific tomcod	Microgadus proximus
Walleye pollock	Theragra chalcogramma
Siner perch	Cymatogaster aggregata
Widow rockfish	Sebastes entomelas
Yellowtail rockfish	Sebastes flavidus
Bocaccio rockfish	Sebastes paucispinis
Sablefish	Anoplopoma fimbria
Lingcod	Ophiodon elongatus
Pacific staghorn sculpin	Leptocattus armatus
Arrowtooth flounder	Atheresthes stomias
Petrale sole	Eopsetta jordani
Rex sole	Glyptocephalus zachirus
Flathead sole	Hippoglossoides elassodon
Yellowfin sole	Limanda aspera
English sole	Parophrys vetulus
Starry flounder	Platichthys stallatus
Sand sole	Psettichthys melanestictus

[a]After Hart (1973)

Table 6. Midwater trawl locations and species compositions of catches made by the M/V SUNNFJORD, November 26-December 12, 1985.

Tow number	1	2	3	4
Date (Day/Mo)	27/11	28/11	29/11	29/11
Time (PST)	10:19	14:11	12:15	16:50
Duration (min)	53	33	31	27
Location	Browning Entr.	Juan Perez	Juan Perez	Juan Perez
Latitude (°')	53°43.0'	52°32.2'	52°34.8"	52°31.5'
Longitude (°')	130°47.1'	131°27.3'	131°38.3'	131°25.8'
Bottom depth (m)	110	237	237	128
Net depth (m)	105	165	165	128
Spiny dogfish	-	443	76	8
Big skate	-	-	-	-
Pacific herring	2700	489	2125	1073
Chum salmon	-	-	-	-
Chinook salmon	-	-	1	-
Eulachon	-	-	-	-
Pacific cod	-	-	-	-
Pacific hake	-	-	13	-
Walleye pollock	-	88	475	59
Shiner perch	-	-	-	-
Widow Rockfish	-	-	2	-
Yellowtail rockfish	-	1	7	2
Bocaccio rockfish	-	-	-	-
Sablefish	-	-	2	-
Arrowtooth flounder	-	-	-	-
Rex sole	-	-	-	-
English sole	-	-	-	-
Squid	-	-	-	-
Euphausiids	-	-	-	-
Total catch (kg)	2700	1021	2701	1142

Table 6 (cont'd)

Tow number	5	6	7	8
Date (Day/Mo)	01/12	01/12	02/12	02/12
Time (PST)	11:29	15:40	15:23	23:59
Duration (min)	53	28	54	25
Location	SW Bonilla	SW Bonilla	Browning Entr.	Browning Entr.
Latitude (°')	53°24.7'	53°31.7'	53°49.9'	53°51.5'
Longitude (°')	130°56.4'	130°51.8'	130°49.3'	130°50.8'
Bottom depth (m)	122	93	73	95
Net depth (m)	102	78	72	51
Spiny dogfish	10	-	-	-
Big skate	-	-	-	-
Pacific herring	1508	662	5003	2571
Chum salmon	-	54	-	-
Chinook salmon	4	-	-	-
Eulachon	-	-	-	-
Pacific cod	-	-	-	-
Pacific hake	-	-	-	-
Walleye pollock	-	-	-	-
Shiner perch	-	-	-	-
Widow Rockfish	-	-	-	-
Yellowtail rockfish	-	-	-	-
Bocaccio rockfish	-	-	-	-
Sablefish	-	-	-	-
Arrowtooth flounder	-	-	-	-
Rex sole	-	-	-	-
English sole	-	-	-	-
Squid	-	-	-	-
Euphausiids	-	-	-	-
Total catch (kg)	1522	716	5003	2571

Table 6 (cont'd)

Tow number	9	12	13	14
Date (Day/Mo)	03/12	05/12	06/12	06/12
Time (PST)	09:58	14:20	15:48	21:16
Duration (min)	33	30	39	13
Location	Browning Entr.	Chatham Sd.	Browning Entr.	Browning Entr.
Latitude (°')	53°49.6'	54°06.6'	53°43.6'	53°39.1'
Longitude (°')	130°52.1'	130°23.8'	130°45.7'	130°38.4'
Bottom depth (m)	94	73	141	60
Net depth (m)	73	-	140	46
Spiny dogfish	-	106	-	-
Big skate	-	-	-	-
Pacific herring	725	12	73	70
Chum salmon	-	54	-	-
Chinook salmon	4	-	6	-
Eulachon	-	9	Tr	-
Pacific cod	-	-	-	-
Pacific hake	-	-	-	-
Walleye pollock	-	1009	-	-
Shiner perch	-	-	Tr	-
Widow Rockfish	-	-	-	-
Yellowtail rockfish	-	-	-	-
Bocaccio rockfish	-	-	-	-
Sablefish	-	-	-	-
Arrowtooth flounder	-	-	-	-
Rex sole	-	-	-	-
English sole	-	-	-	-
Squid	-	-	1	-
Euphausiids	-	-	-	-
Total catch (kg)	725	1136	80	70

Table 6 (cont'd)

Tow number	15	16	17	18
Date (Day/Mo)	06/12	07/12	08/12	08/12
Time (PST)	10:49	14:36	20:43	23:02
Duration (min)	7	24	28	21
Location	Browning Entr.	Chatham Sd.	Browning Entr.	Browning Entr.
Latitude (°')	53°40.9'	54°10.1'	53°49.2'	53°51.7'
Longitude (°')	130°36.6'	130°31.6'	130°44.1'	130°52.2'
Bottom depth (m)	55	128	117	86
Net depth (m)	30	114	92	83
Spiny dogfish	-	Tr	-	-
Big skate	-	-	-	-
Pacific herring	817	6	10	361
Chum salmon	-	-	-	-
Chinook salmon	4	-	-	-
Eulachon	-	9	5	-
Pacific cod	-	-	Tr	Tr
Pacific hake	-	-	-	-
Walleye pollock	-	120	-	-
Shiner perch	-	-	Tr	-
Widow Rockfish	-	-	-	-
Yellowtail rockfish	-	-	-	-
Bocaccio rockfish	-	-	-	5
Sablefish	-	-	-	-
Arrowtooth flounder	-	-	-	-
Rex sole	-	-	-	-
English sole	-	-	-	-
Squid	-	-	-	Tr
Euphausiids	-	Tr	-	-
Total catch (kg)	817	135	15	366

Table 6 (cont'd)

Tow number	19	20	21	22
Date (Day/Mo)	09/12	09/12	09/12	10/12
Time (PST)	11:42	13:32	17:16	00:23
Duration (min)	40	33	31	37
Location	SW Bonilla	SW Bonilla	Browning Entr.	Browning Entr.
Latitude (°')	53°27.4'	53°31.0'	53°48.1'	53°41.3'
Longitude (°')	130°54.4'	130°51.9'	130°52.5'	130°47.9'
Bottom depth (m)	96	96	112	54
Net depth (m)	93	87	93	53
Spiny dogfish	-	-	10	-
Big skate	-	-	7	-
Pacific herring	30	6640	Tr	2507
Chum salmon	-	-	-	-
Chinook salmon	3	Tr	-	-
Eulachon	-	-	-	-
Pacific cod	-	-	34	Tr
Pacific hake	-	-	-	-
Walleye pollock	-	-	9	-
Shiner perch	-	Tr	-	-
Widow Rockfish	-	-	-	-
Yellowtail rockfish	-	-	-	-
Bocaccio rockfish	-	-	3	-
Sablefish	-	-	-	-
Arrowtooth flounder	-	-	4	-
Rex sole	-	-	7	-
English sole	-	-	4	-
Squid	64	5	-	-
Euphausiids	-	-	-	-
Total catch (kg)	97	6645	79	2507

Table 7. Bottom trawl locations and species composition of catches made by the M/V SUNNFJORD, November 26-December 12, 1985.

Tow number	10	11
Date (Day/Mo)	03/12	05/12
Time (PST)	14:47	08:07
Duration (min)	24	5
Location	Browning Entr.	Kitkatla Inlet
Latitude (°')	53°45.9'	53°55.5'
Longitude (°')	130°53.7'	130°37.9'
Bottom depth (m)	100	55
Net depth (m)	100	55
Spiny dogfish	354	-
Longnose skate	19	-
Ratfish	19	2
Pacific herring	46	-
Pacific cod	28	-
Pacific tomcod	-	2
Walleye pollock	15	-
Shiner perch	1	-
Sablefish	18	-
Lingcod	8	-
Pacific staghorn sculpin	-	2
Arrowtooth flounder	69	126
Petrale sole	24	-
Rex sole	29	-
Flathead sole	10	-
Yellowfin sole	-	318
English sole	425	2
Starry flounder	-	-
Sand sole	-	6
Squid	1	-
Total catch (kg)	1066	458

Table 8. Percent age composition, mean length-at-age (mm) and mean weight-at-age (g) of herring sampled from M/V SUNNFJORD trawl tows, November 26-December 12, 1985.

Tow no.		Age										Number aged
		1	2	3	4	5	6	7	8	9	10+	
1	% Comp.	0.0	1.1	5.4	8.7	32.6	18.5	18.5	8.7	4.3	2.2	92
	Mean length	0.0	171.0	184.2	198.4	205.5	219.2	226.6	230.3	226.5	254.0	
	Mean weight	0.0	59.0	93.6	116.9	140.0	162.2	170.0	190.6	191.3	236.0	
2	% Comp.	0.0	0.0	0.0	9.4	37.6	9.4	5.9	12.9	23.5	1.2	85
	Mean length	0.0	0.0	0.0	208.6	213.1	219.1	233.0	233.4	230.8	224.0	
	Mean weight	0.0	0.0	0.0	142.1	148.6	169.3	193.0	199.6	198.4	174.0	
3	% Comp.	0.0	0.0	3.7	11.0	43.9	1.2	2.4	12.2	24.4	1.2	82
	Mean length	0.0	0.0	191.0	203.9	214.1	218.0	231.5	226.1	233.7	235.0	
	Mean weight	0.0	0.0	107.0	126.4	152.1	149.0	190.5	180.3	201.9	198.0	
4	% Comp.	0.0	0.0	1.6	14.3	36.5	3.2	11.1	11.1	20.6	1.6	63
	Mean length	0.0	0.0	195.0	206.9	218.0	225.5	229.1	228.1	238.9	248.0	
	Mean weight	0.0	0.0	94.0	131.4	150.3	180.5	179.6	182.0	205.2	216.0	
5	% Comp.	0.0	41.4	5.7	13.8	29.9	6.9	1.1	1.1	0.0	0.0	87
	Mean length	0.0	155.1	189.9	198.6	206.7	206.5	219.0	235.0	0.0	0.0	
	Mean weight	0.0	50.8	106.8	121.3	136.0	135.7	153.0	182.0	0.0	0.0	
6	% Comp.	0.0	0.0	9.2	2.3	51.7	18.4	6.9	6.9	2.3	2.3	87
	Mean length	0.0	0.0	182.3	202.0	205.7	216.6	224.3	218.3	196.0	259.0	
	Mean weight	0.0	0.0	93.9	134.5	137.1	154.4	167.3	172.0	117.0	207.5	
7	% Comp.	0.0	2.2	17.8	5.6	36.7	17.8	6.7	4.4	5.6	3.3	90
	Mean length	0.0	163.5	188.9	213.0	207.9	215.6	217.8	232.3	236.8	236.7	
	Mean weight	0.0	54.0	101.9	154.0	145.8	162.5	170.3	205.8	205.6	228.0	
8	% Comp.	0.0	8.6	18.3	7.5	24.7	19.4	7.5	6.5	6.5	1.1	93
	Mean length	0.0	157.5	188.1	202.6	207.0	211.8	215.9	238.8	241.8	257.0	
	Mean weight	0.0	72.3	105.1	138.4	143.7	147.1	160.7	219.0	213.7	232.0	

Table 8 (cont'd)

Tow no.		Age 1	2	3	4	5	6	7	8	9	10+	Number aged
9	% Comp.	0.0	3.7	27.2	18.5	18.5	12.3	9.9	6.2	1.2	2.5	81
	Mean length	0.0	151.7	185.9	199.1	206.3	200.3	216.0	208.6	255.0	247.0	
	Mean weight	0.0	46.7	100.1	125.6	129.9	131.6	152.5	138.4	280.0	229.0	
10	% Comp.	0.0	0.0	7.6	7.6	46.8	16.5	3.8	6.3	8.9	2.5	79
	Mean length	0.0	0.0	187.8	199.3	203.3	213.7	219.0	219.0	226.0	250.0	
	Mean weight	0.0	0.0	102.7	131.8	142.8	165.1	167.3	177.4	193.0	241.5	
11	% Comp.	0.0	70.9	19.8	2.3	0.0	5.8	0.0	0.0	1.2	0.0	86
	Mean length	0.0	138.3	164.2	172.0	0.0	207.4	0.0	0.0	238.0	0.0	
	Mean weight	0.0	35.9	64.1	84.0	0.0	133.0	0.0	0.0	194.0	0.0	
12	% Comp.	0.0	70.9	19.8	2.3	0.0	5.8	0.0	0.0	1.2	0.0	86
	Mean length	0.0	138.3	164.2	172.0	0.0	207.4	0.0	0.0	238.0	0.0	
	Mean weight	0.0	35.9	64.1	84.0	0.0	133.0	0.0	0.0	194.0	0.0	
13	% Comp.	72.3	27.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94
	Mean length	112.8	131.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Mean weight	17.9	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14	% Comp.	0.0	41.3	9.8	7.6	16.3	6.5	8.7	4.3	5.4	0.0	92
	Mean length	0.0	145.0	185.2	202.9	202.0	215.5	221.5	228.3	238.2	0.0	
	Mean weight	0.0	39.7	96.2	128.4	130.7	145.5	166.5	179.0	194.6	0.0	
15	% Comp.	0.0	91.8	2.1	0.0	0.0	2.1	0.0	1.0	0.0	0.0	96
	Mean length	0.0	147.6	165.5	0.0	0.0	220.0	0.0	220.0	0.0	0.0	
	Mean weight	0.0	43.7	73.0	0.0	0.0	157.0	0.0	162.0	0.0	0.0	
18	% Comp.	0.0	18.7	14.7	16.0	17.3	20.0	5.3	2.7	1.3	4.0	75
	Mean length	0.0	157.6	181.5	203.9	204.8	202.8	214.8	226.0	233.0	235.7	
	Mean weight	0.0	49.9	87.8	122.3	131.8	120.7	136.8	173.0	189.0	192.7	

Table 8 (cont'd)

Tow no.		Age 1	2	3	4	5	6	7	8	9	10+	Number aged
19	% Comp.	0.0	8.6	11.8	19.4	41.9	10.8	5.4	2.2	0.0	0.0	93
	Mean length	0.0	165.0	182.3	201.3	203.9	203.5	201.8	206.0	0.0	0.0	
	Mean weight	0.0	58.9	89.5	117.6	131.0	133.9	123.8	139.0	0.0	0.0	
20	% Comp.	0.0	0.0	1.1	10.8	46.2	14.0	15.1	9.7	2.2	1.1	93
	Mean length	0.0	0.0	182.0	203.2	207.4	214.2	222.0	234.2	229.0-	256.0	
	Mean weight	0.0	0.0	105.0	127.8	147.3	154.5	168.2	196.0	193.0	257.0	
22	% Comp.	0.0	3.3	4.4	4.4	14.3	22.0	19.8	13.2	7.7	11.0	91
	Mean length	0.0	156.0	187.8	206.0	212.4	220.7	227.6	239.3	244.9	254.5	
	Mean weight	0.0	49.7	100.8	122.3	141.4	162.8	172.3	199.8	210.1	251.7	
Total	% Comp.	4.0	17.9	8.9	8.8	27.5	11.4	7.1	6.1	6.4	1.9	1645

Table 9. Larval fish catches and standard larval lengths (mm) from bongo net samples collected during G.B. REED cruise, November 26-December 12, 1985.

Bongo station	Location	Net depth (m)	Date (D/M/Y)	Time (PST)	Larval count & mean standard length (mm) by family classification[a]						Total larval count	Flowmeter revolutions	Relative[b] abundance of fish larval
					UN	GA	HE	CO	AG	PL			
1	Juan Perez	100	29.11.85	0820	3 6.0	-	-	-	-	13 8.6	16	17440	71
2	Juan Perez	100	29.11.85	0848	-	-	-	-	-	5 8.3	5	16999	23
3	Atli Inlet 52°45.7' x 131°24.9'	100	30.11.85	0837	1 5.8	-	-	-	1 11.8	3 8.9	5	14791	26
4	Laskeek Bay 52°49.3' x 131°28.5'	100	30.11.85	1200	1 5.8	-	4 15.7	-	-	1 8.8	6	15125	31
5	Selwyn Inlet 52°52.3' x 131°44.7'	100	30.11.85	1457	-	-	1 11.0	-	-	3 8.8	4	13040	24
6	Cumshewa 53°02.4' x 131°54.6'	71	30.11.85	1912	-	-	2 10.0	2 8.6			4	11023	28
7	NE Reef Is. 52°51.4' x 131°25.4'	71	30.11.85	2135	1 6.1	1 8.5	-	-	1 14.6	13 10.3	16	11299	109
8	SW Bonilla 53°21.4' x 130°50.4'	85	01.11.85	0820	-	-	-	-	-	-	0	13157	0
9	W Bonilla 53°21.4' x 130°50.4"	100	01.11.85	1345	-	-	-	-	-	-	0	13797	0
10	SW Bonilla 53°15.2' x 130°51.3'	92	01.11.85	2020	-	-	-	-	-	-	0	15307	0

Table 9 (cont'd)

Bongo station	Location	Net depth (m)	Date (D/M/Y)	Time (PST)	Larval count & mean standard length (mm) by family classification[a]						Total larval count	Flowmeter revolutions	Relative[b] abundance of fish larval
					UN	GA	HE	CO	AG	PL			
11	Kitkatla 53°48.9' x 130°28.2'	56	04.11.85	1220	-	1 6.4	-	13 6.1	-	-	14	08525	127
12	Chatham Sound 54°09.0' x 130°27.9'	56	05.11.85	1850	-	-	-	1 5.8	-	-	1	07620	10
13	Two Peaks 54°24.8' x 131°19.6'	100	07.11.85	1230	-	-	-	-	-	-	0	13405	0
Total					6	2	7	16	2	38	71	171528	

[a]UN = unclassified; GA = Gadidae (codfishes); HE = Hexagrammidae (Greenlings); CO = Cottidae (Sculpins); AG = Agonidae (Poachers); PL = Pleuronectidae (Flatfishes).

[b]Relative abundance = number of fish larvae per 1000 m^3 seawater filtered.

Table 10. Locations of hydrographic and plankton stations and water temperatures (°C) at standard depths during G.B. REED cruise, November 26–December 12, 1985.

Station no.	Day/ month	Time (PST)	N. Lat.		W. Long.		Standard depths (m)												Bottom	
			°	'	°	'	0	10	20	30	50	75	100	125	150	200	250	300	°C	Depth (m)
1	27/11	1745	51	07	128	19	7.8	7.8	7.8	7.8	7.7	8.0	7.5	6.8	6.7	-	-	-	6.6	185
5	27/11	2005	51	23	128	42	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.2	6.7	6.2	-	-	6.2	223
13	28/11	0035	52	00	129	42	7.1	7.1	7.1	7.1	7.1	7.1	7.0	6.7	6.5	6.4	-	-	6.4	206
15	28/11	0455	52	00	130	31	7.0	7.0	7.0	7.0	7.0	7.0	6.9	6.7	6.7	6.0	5.9	5.8	5.4	437
J-1	29/11	0930	52	32	131	20	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	-	-	7.0	210
24	01/12	1330	53	30	130	46	6.8	6.8	6.8	7.7	7.2	7.2	7.8	7.6	7.1	-	-	-	6.1	220
33	07/12	1159	54	25	131	20	5.5	5.3	5.1	5.2	5.2	6.1	5.8	5.8	6.1	6.1	-	-	6.1	220
21	10/12	1859	53	00	130	12	6.9	6.9	6.9	6.9	6.8	6.8	6.7	6.2	6.1	6.0	-	-	6.0	229

Table 11. Comparison of biomass estimates, in thousands of metric tonnes (t) among different stock assessment methods.

Locations(s)	Post-fishery spawn biomass estimate (Spring 1986)	Post-fishery age-structure biomass estimate (Spring 1986)	Pre-fishery hydroacoustic biomass est. (Dec./85)
Juan Perez/Skincuttle	4.4	17.7	6.2
(Cumshewa)	(1.5)	-	(3.2)
April 1986 catch	3.6	3.6	-
S.E. Queen Charlotte District Total biomass estimate (excluding Cumshewa)	8.0	21.3	6.2
S.W. Bonilla	-	-	11.1
Kitkatla Inlet	-	-	0.5
Browning Entrance	- 24.3	- 29.5	17.0
Chatham Sound	-	-	3.0
April 1986 catch	8.5	8.5	-
Prince Rupert District Total biomass estimate	32.8	38.0	31.9

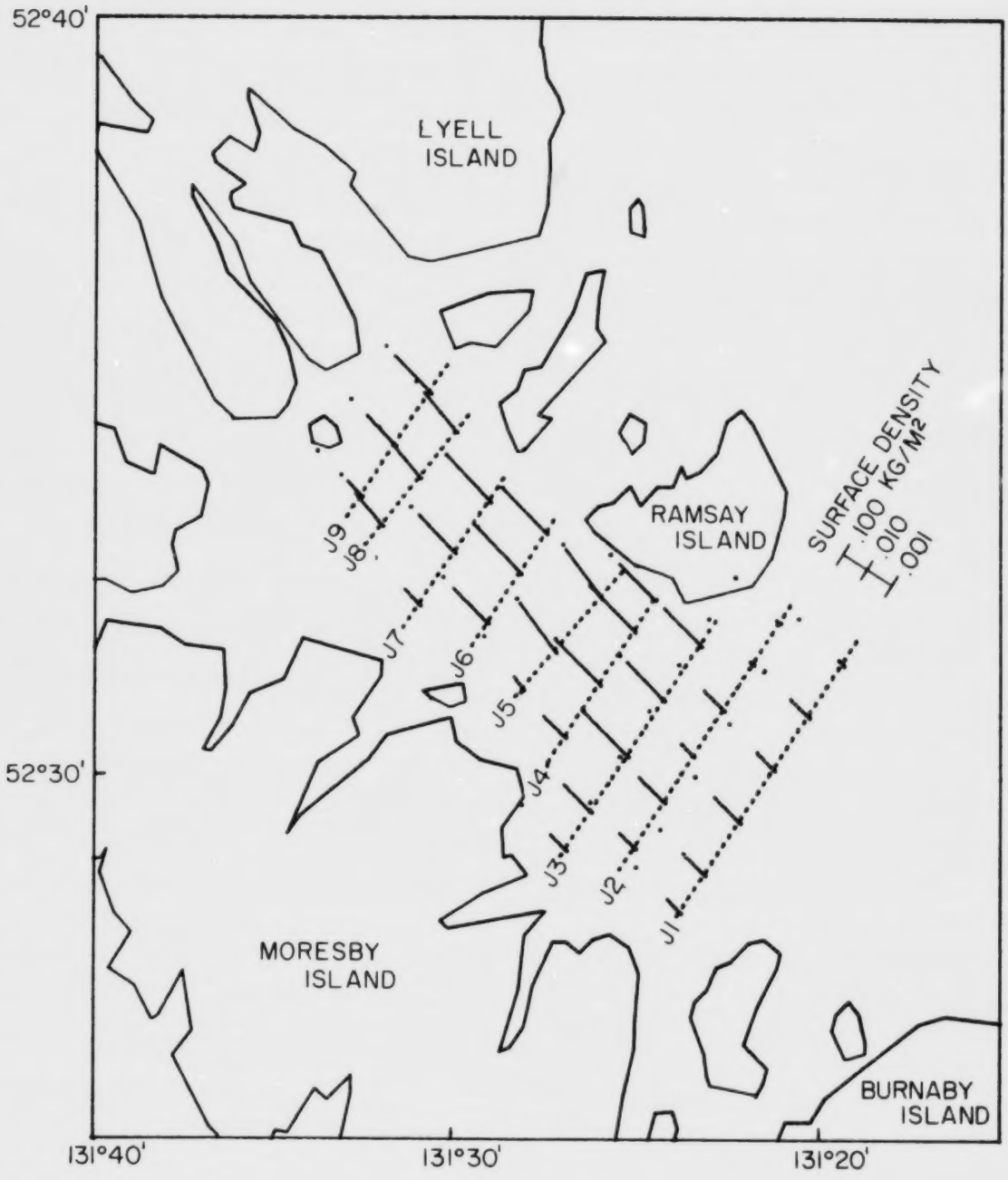

Fig. 1a. Biomass density map of Juan Perez Sound. Total herring biomass estimated at 4,980 t. Density bars use a logarithmic scale of .001 kg/m^2 to .100 kg/m^2 in Figures 1-5.

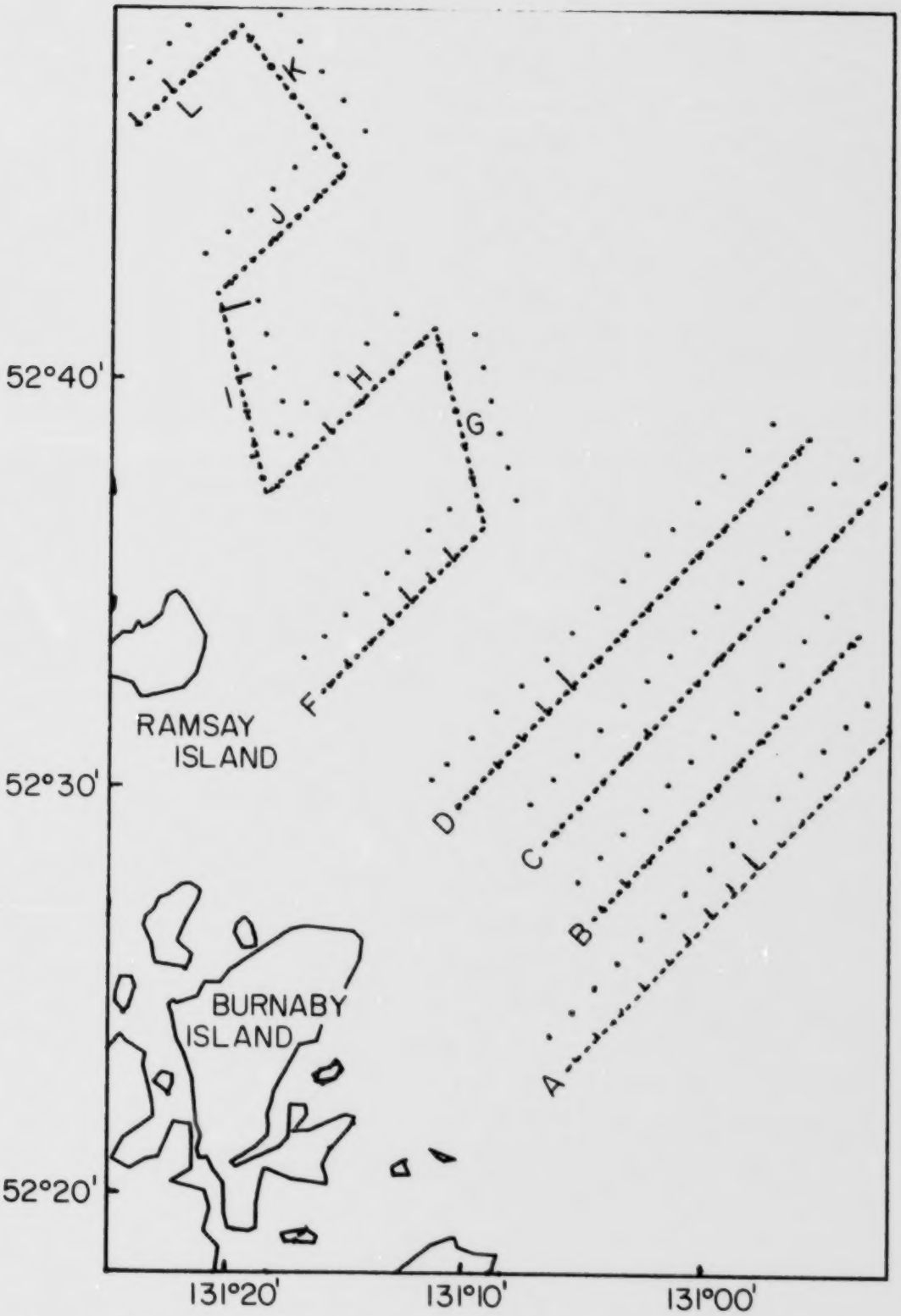

Fig. 1b. Biomass density map of Juan Perez offshore grounds. Total biomass estimated at 1,250 t.

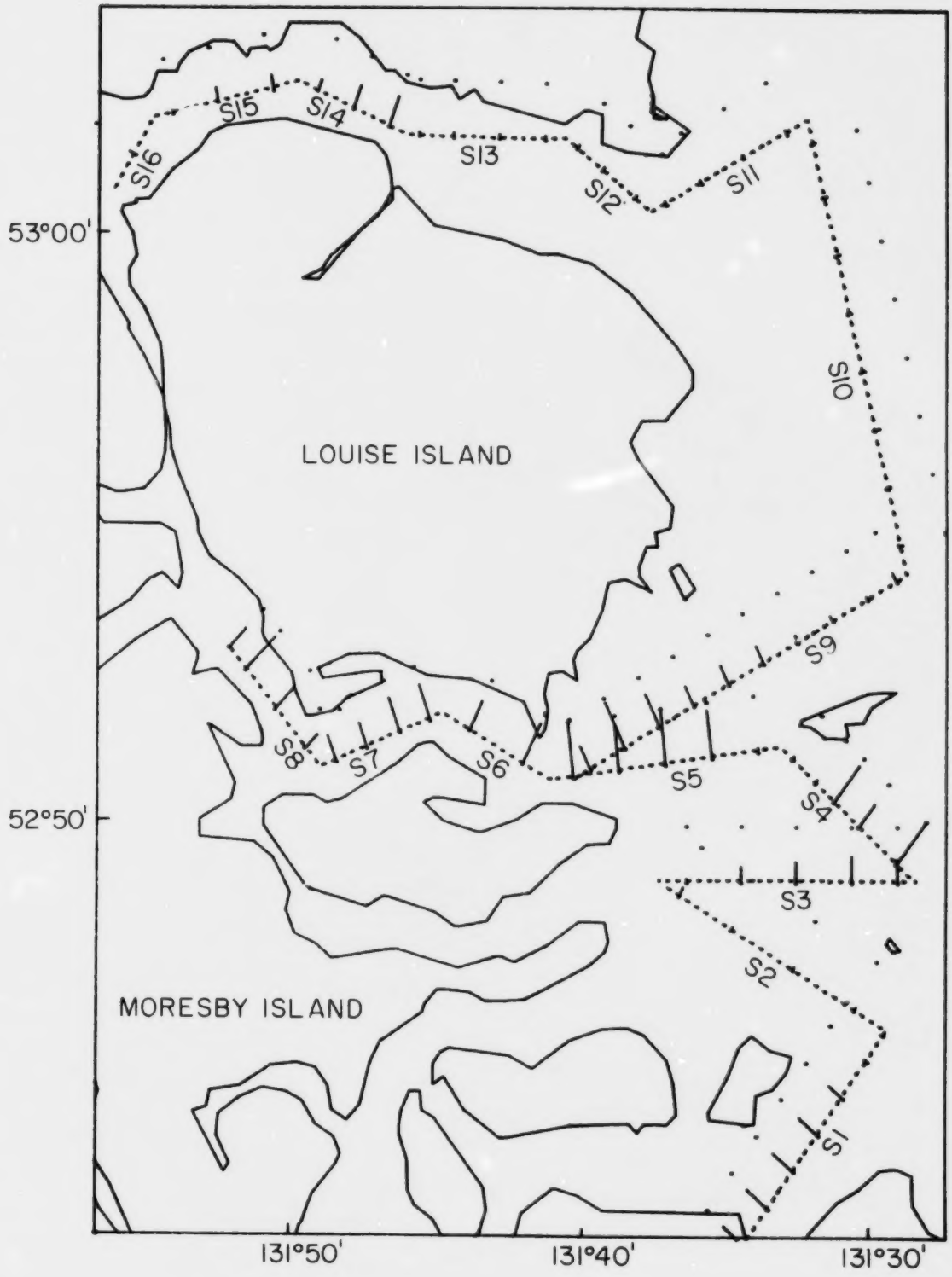

Fig. 1c. Biomass density map of Cumshewa and Selwyn Inlets. Total biomass estimated at 3,182 t.

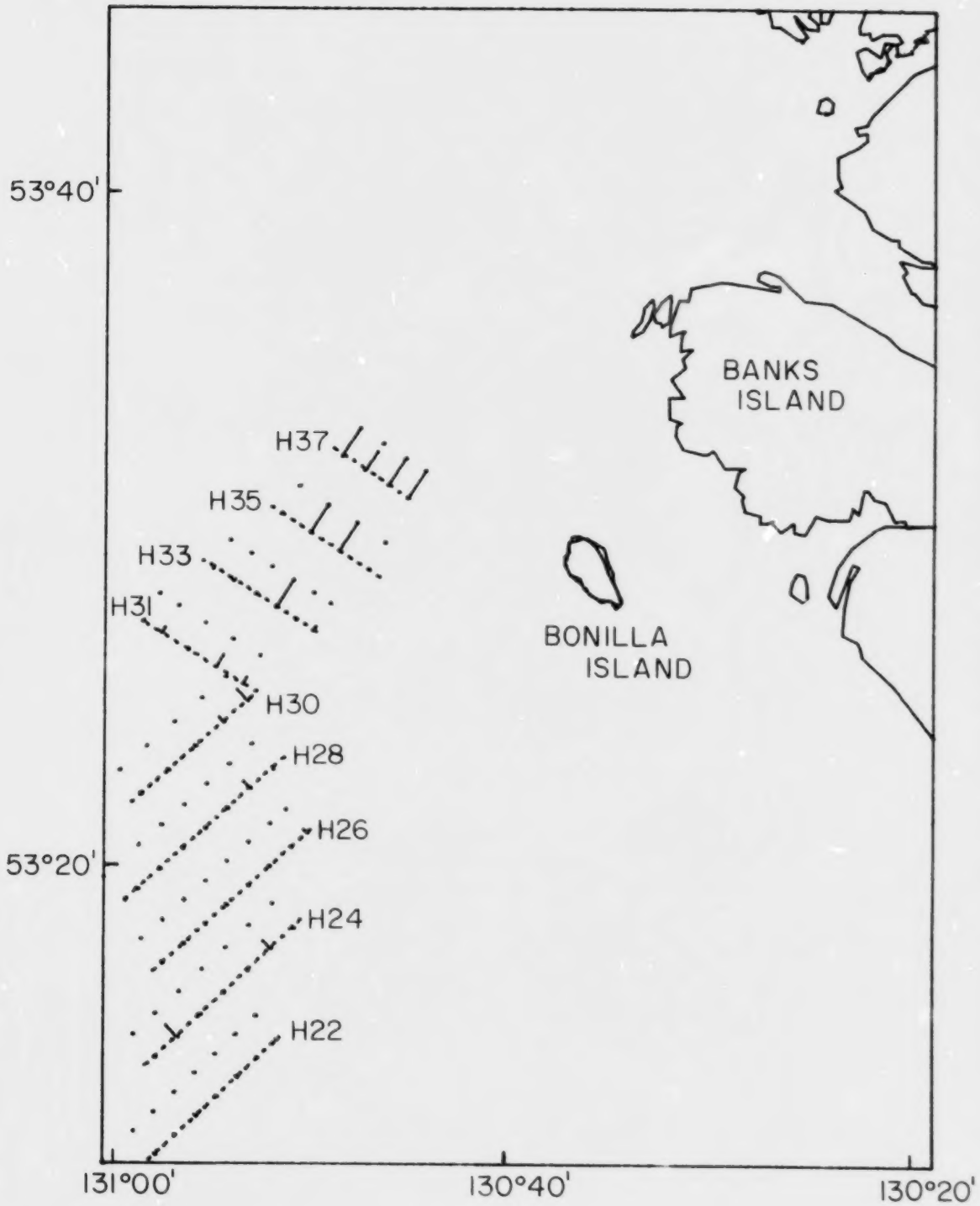

Fig. 2. Biomass density map of SW Bonilla Island Ground. Total biomass estimated at 11,079 t.

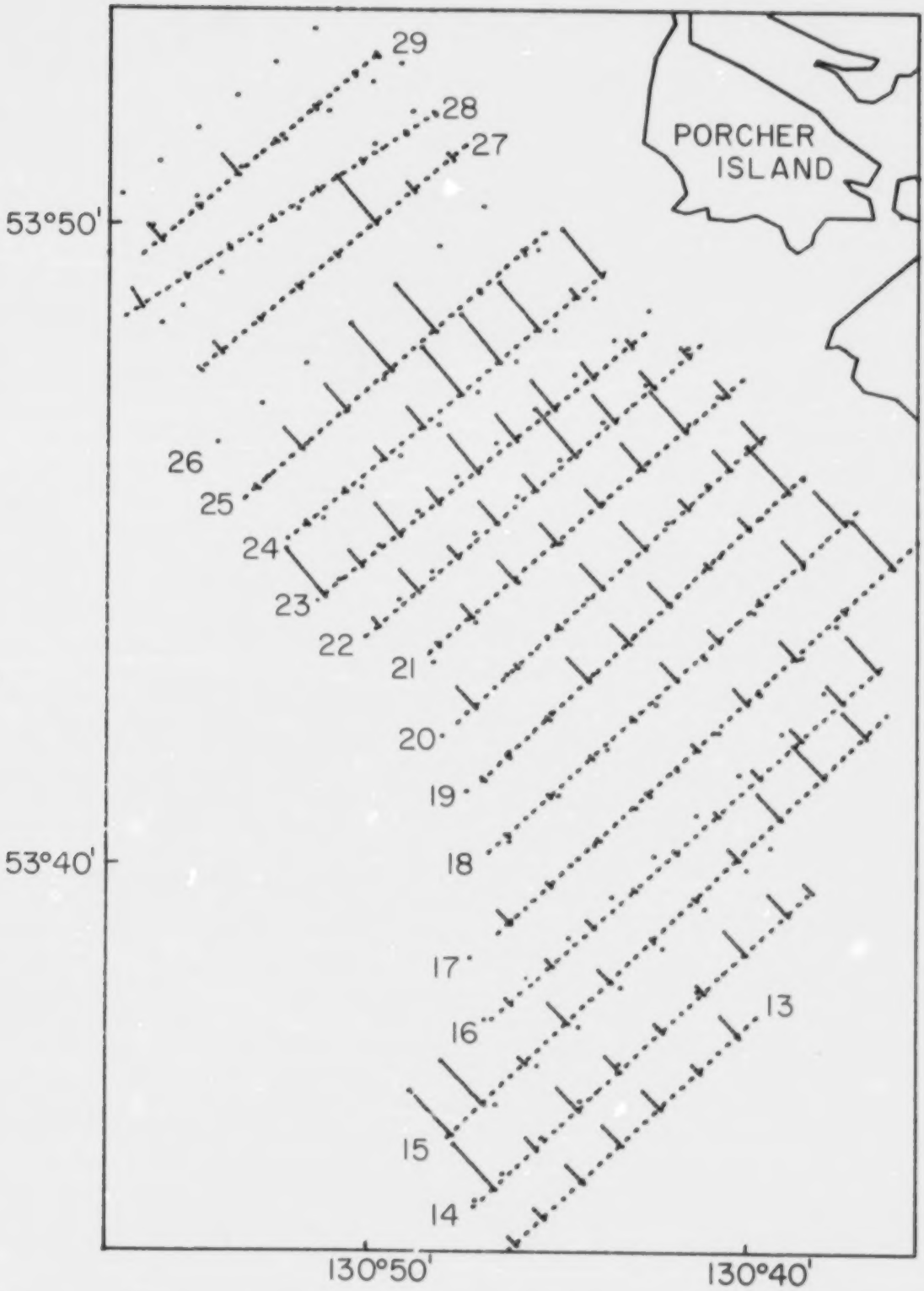

Fig. 3a. Biomass density map of Browning Entrance. Total biomass estimated at 17,300 t.

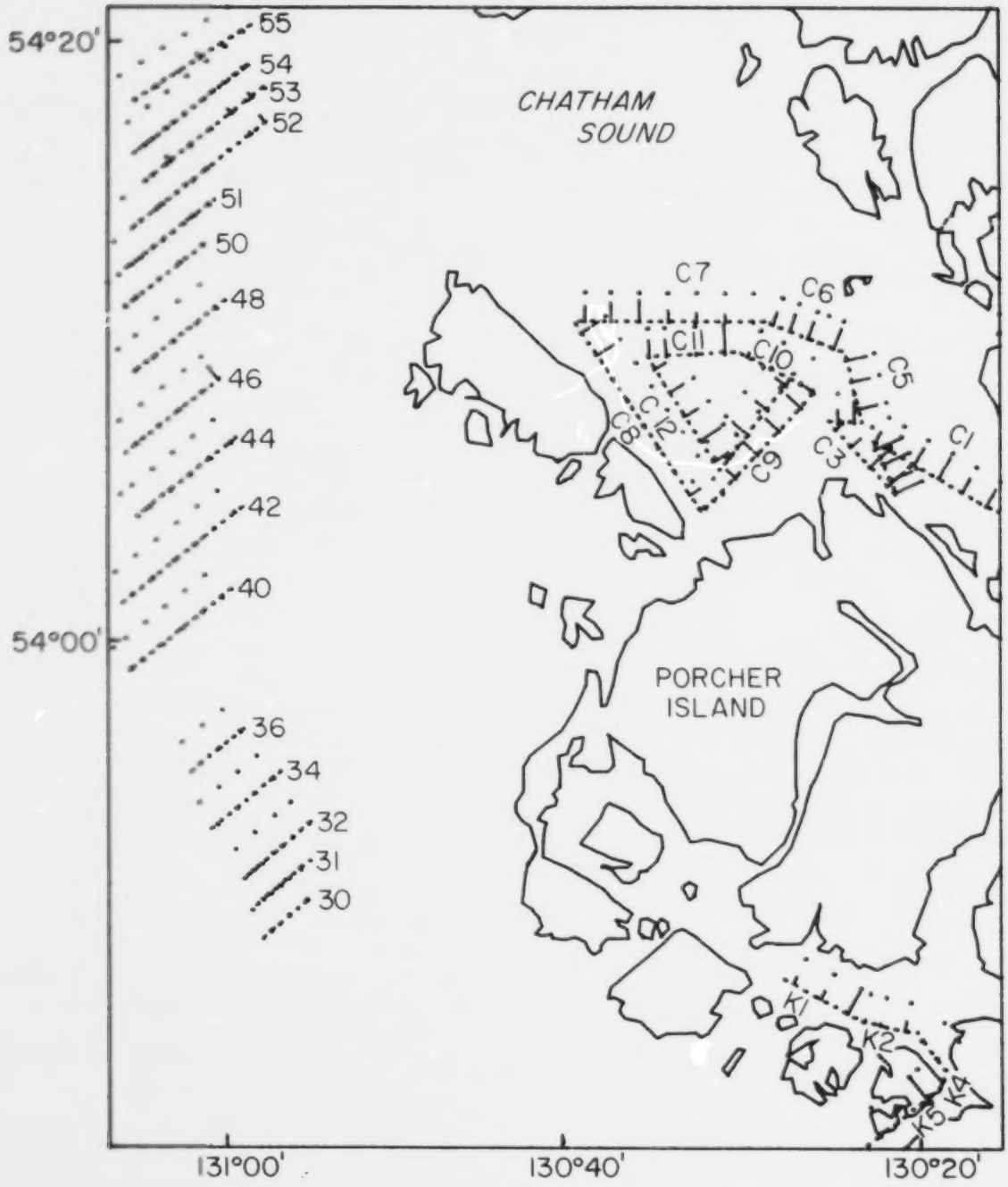

Fig. 3b. Biomass density map of Butterworth Edge, Southern Chatham Sound and Kitkatla Inlet. Total biomass estimated at 177 t, 3,000 t and 524 t, respectively.

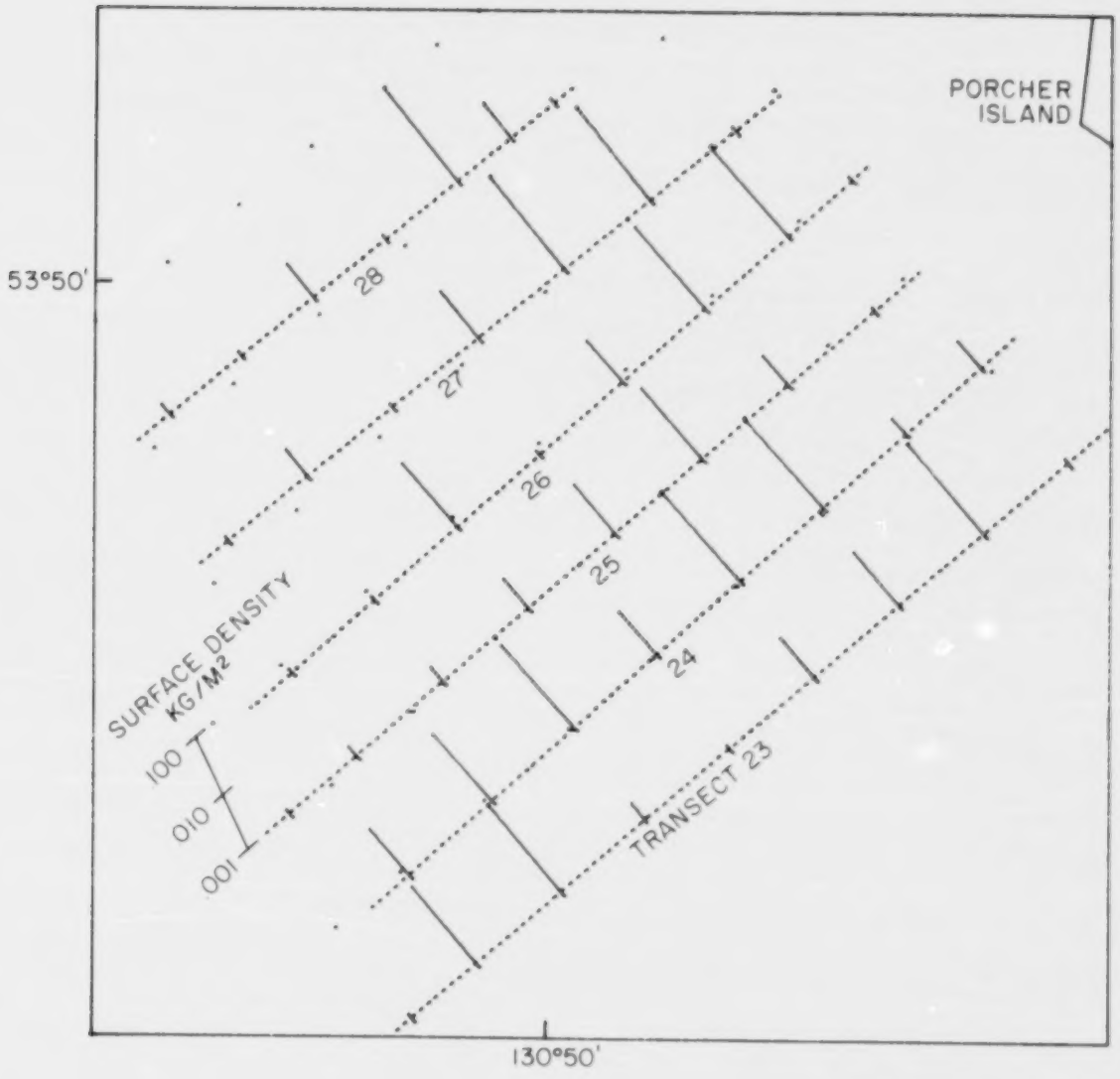

Fig. 4a. Biomass density map of Browning Entrance, 24 hour survey long transects 23-28, 1200-1800 hrs. Total biomass estimated at 5,920 t.

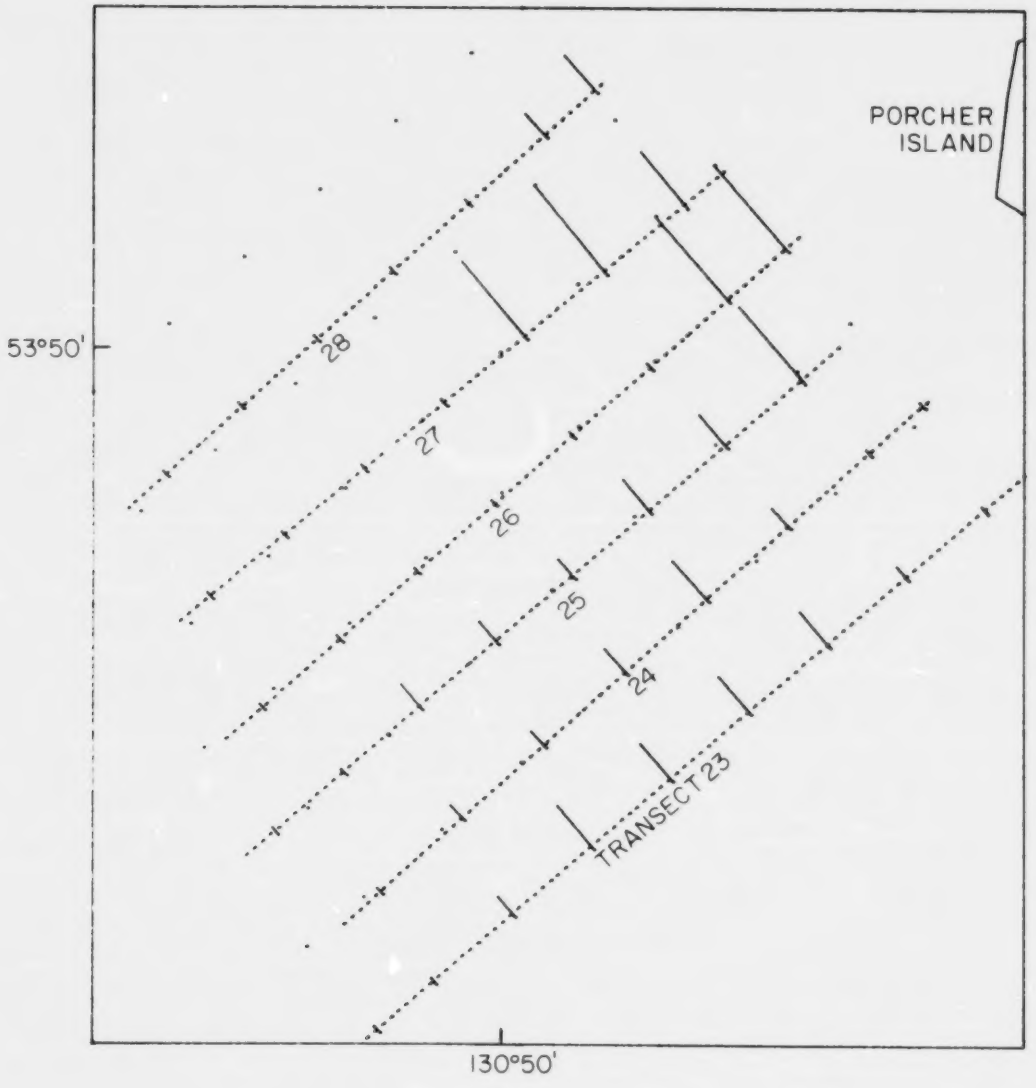

Fig. 4b. Biomass density map of Browning Entrance, 24 hour survey long transects 23-28, 1800-2400 hrs. Total biomass estimated at 3,840 t.

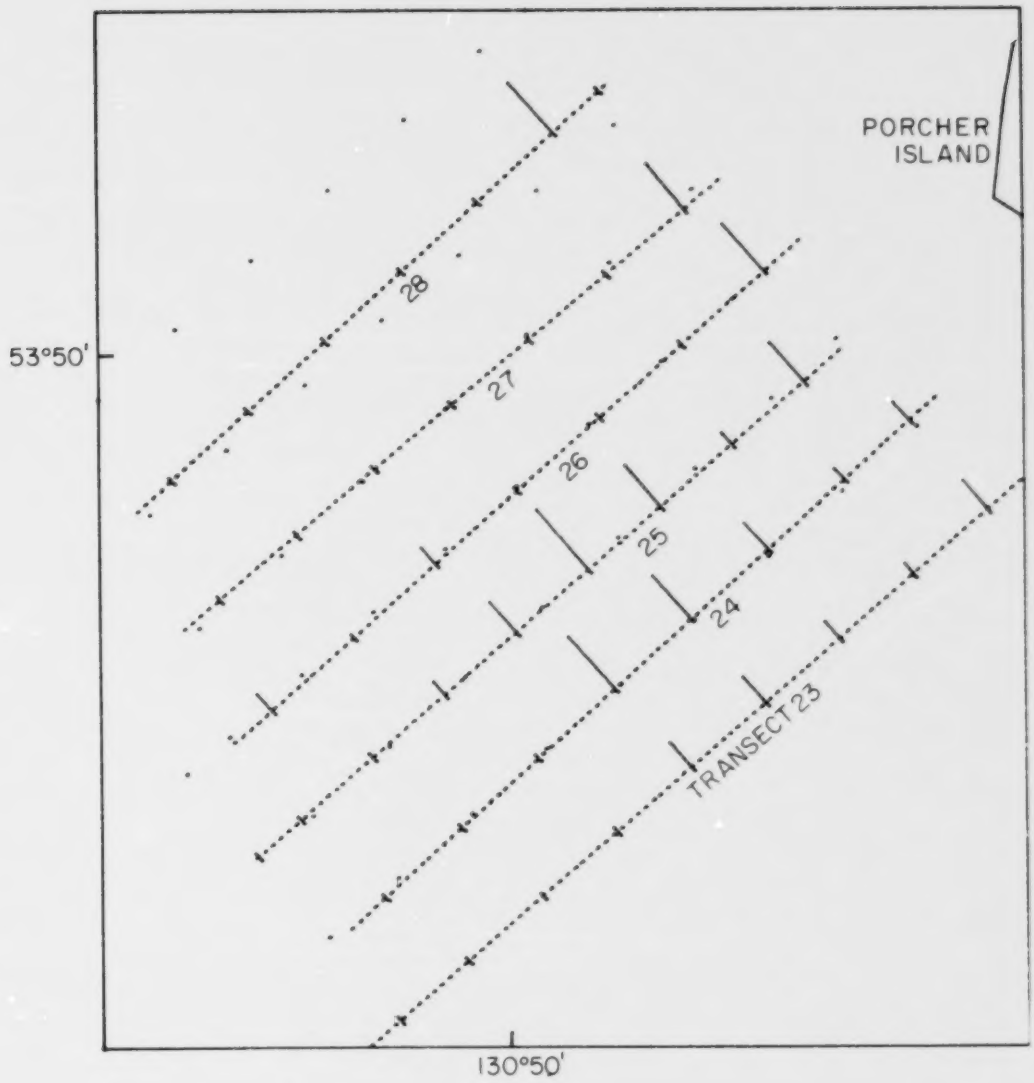

Fig. 4c. Biomass density map of Browning Entrance, 24 hour survey long transects 23-28, 0000-0600 hrs. Total biomass estimated at 478 t.

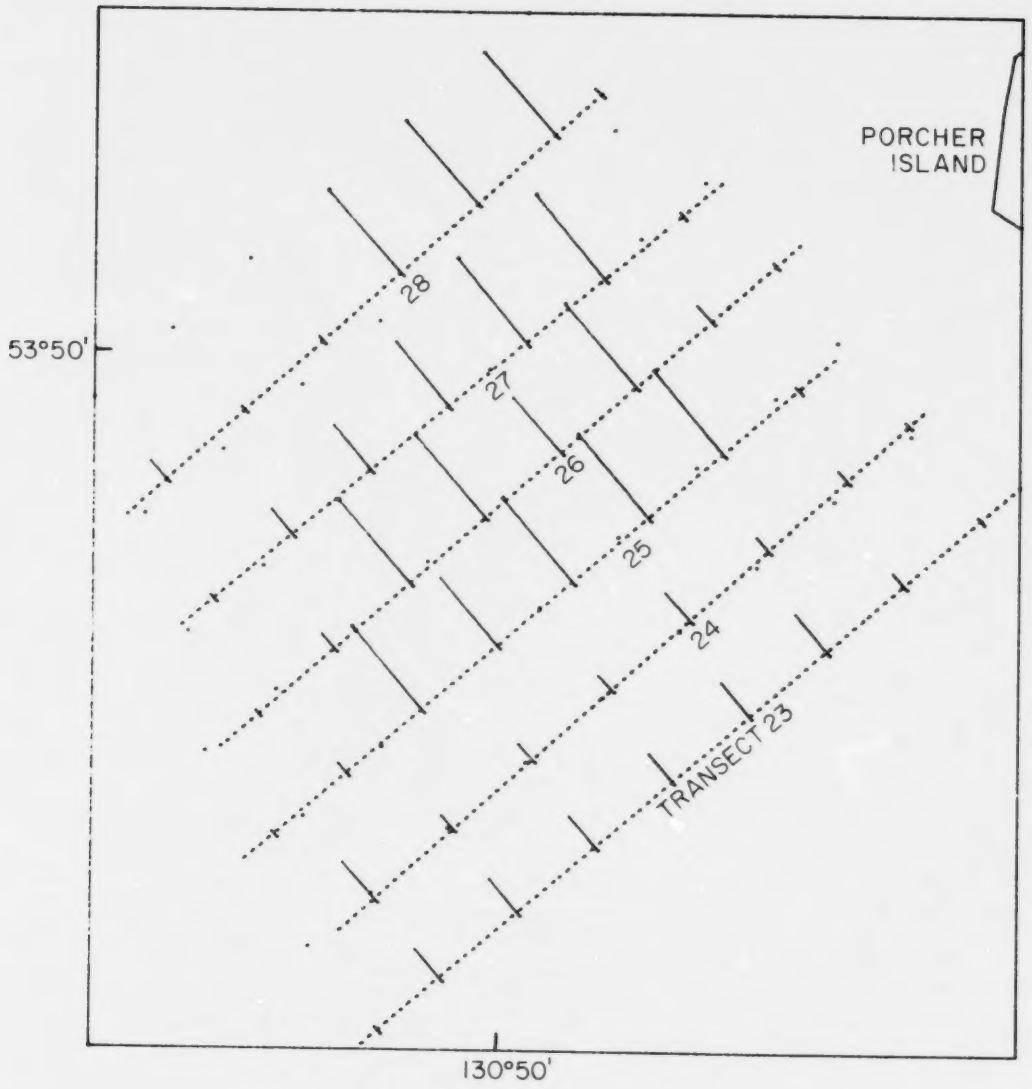

Fig. 4d. Biomass density map of Browning Entrance, 24 hour survey long transects 23-28, 0600-1200 hrs. Total biomass estimated at 6,990 t.

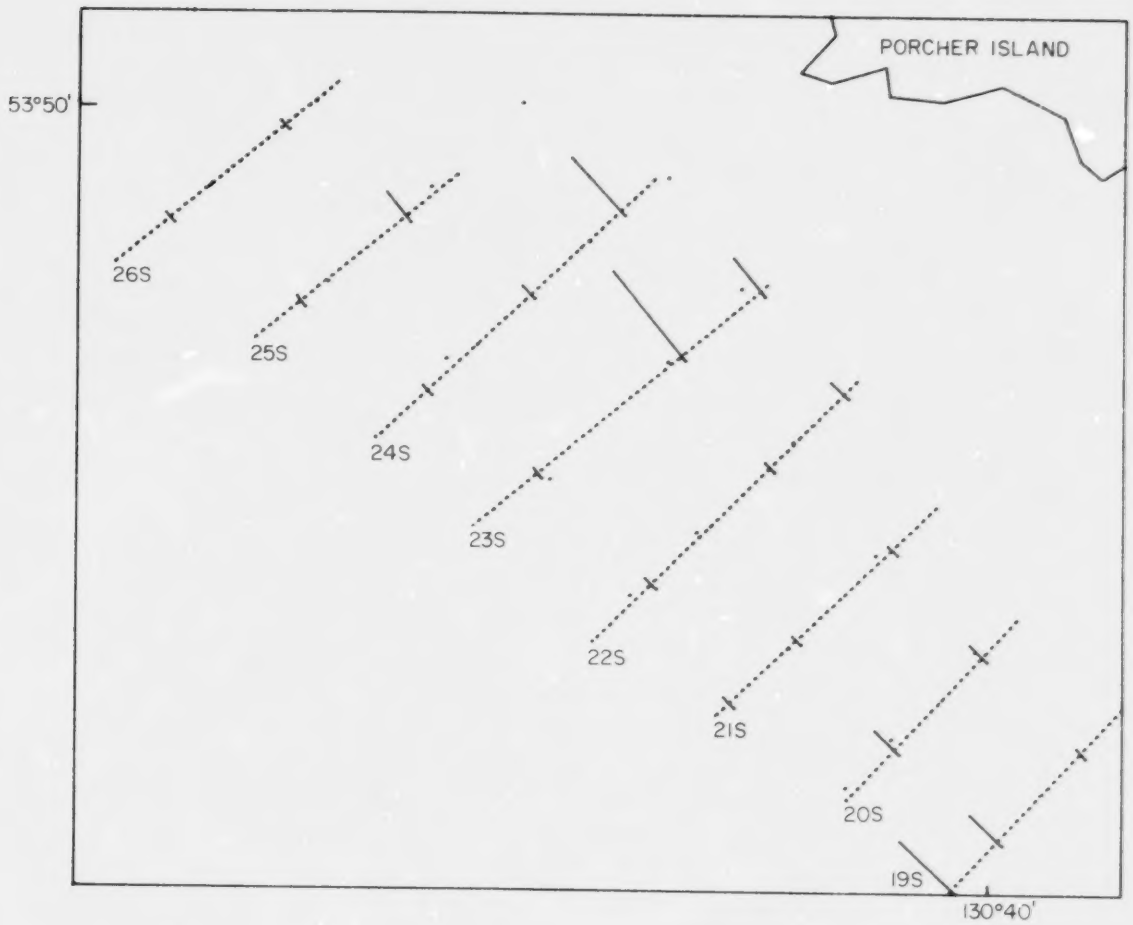

Fig. 5a. Biomass density map of Browning Entrance, 24 hour survey short transects 19S-26S, 1630-2052 hrs. Total biomass estimated at 191 t.

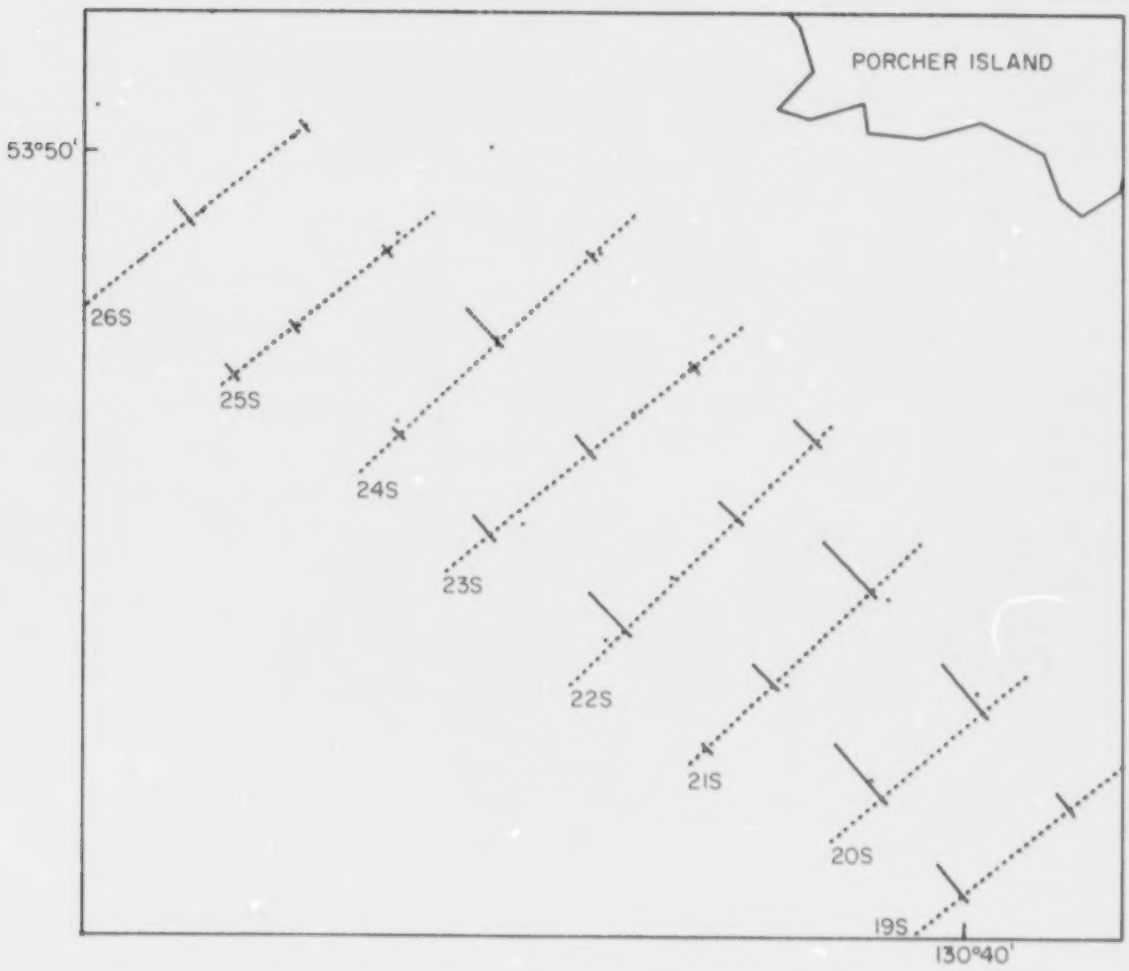

Fig. 5b. Biomass density map of Browning Entrance, 24 hour survey short transects 19S-26S, 2140-0023 hrs. Total biomass estimated at 154 t.

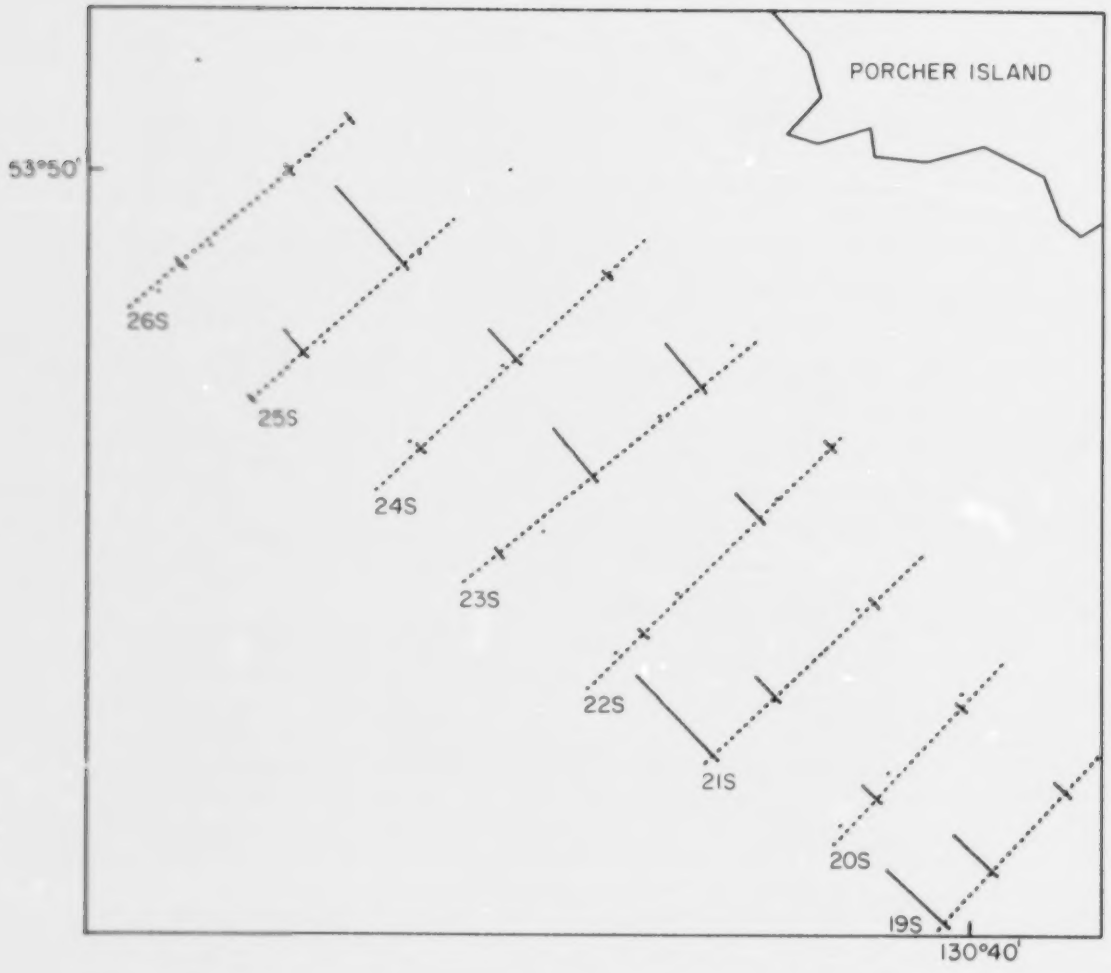

Fig. 5c. Biomass density map of Browning Entrance, 24 hour survey short transects 19S-26S, 0517-0801 hrs. Total biomass estimated at 218 t.

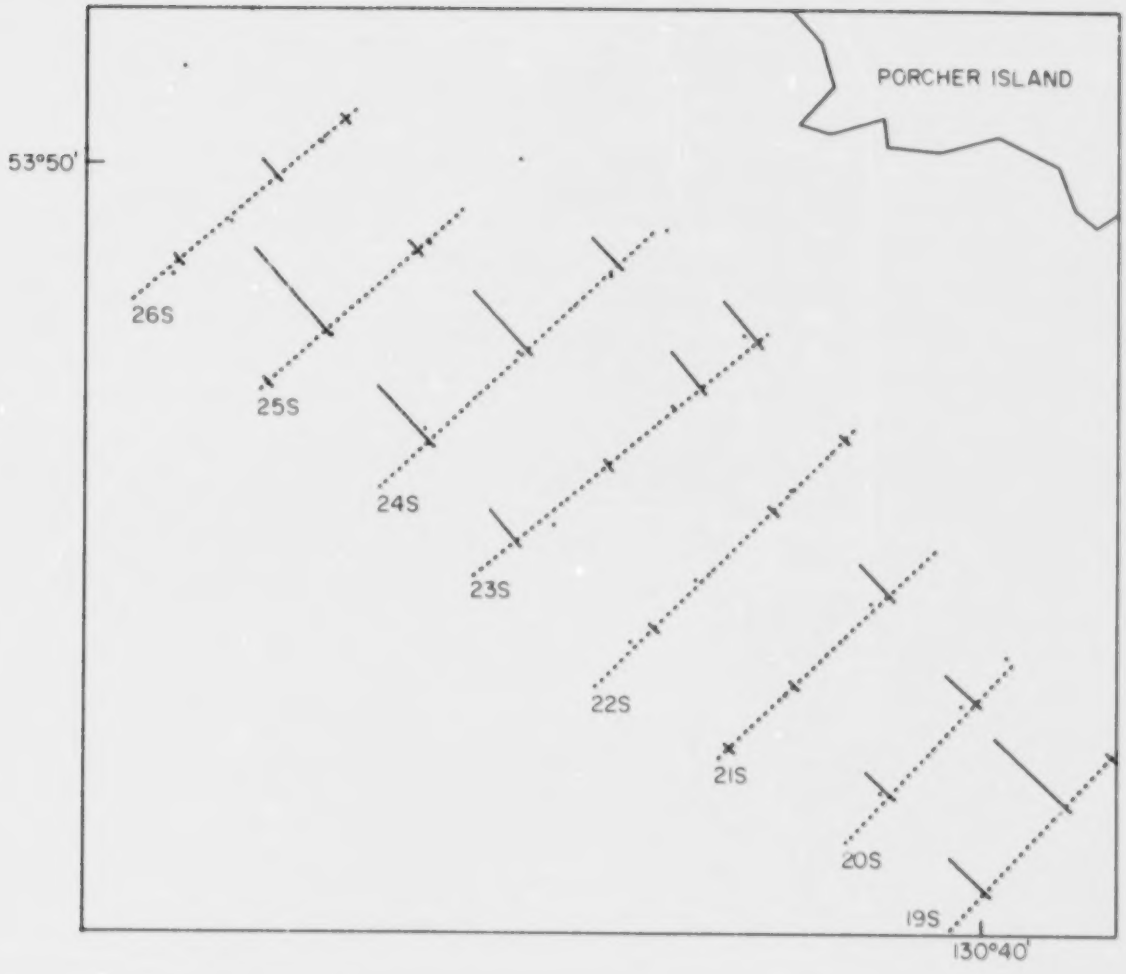

Fig. 5d. Biomass density map of Browning Entrance, 24 hour survey short transects 19S-26S, 0844-1133 hrs. Total biomass estimated at 287 t.

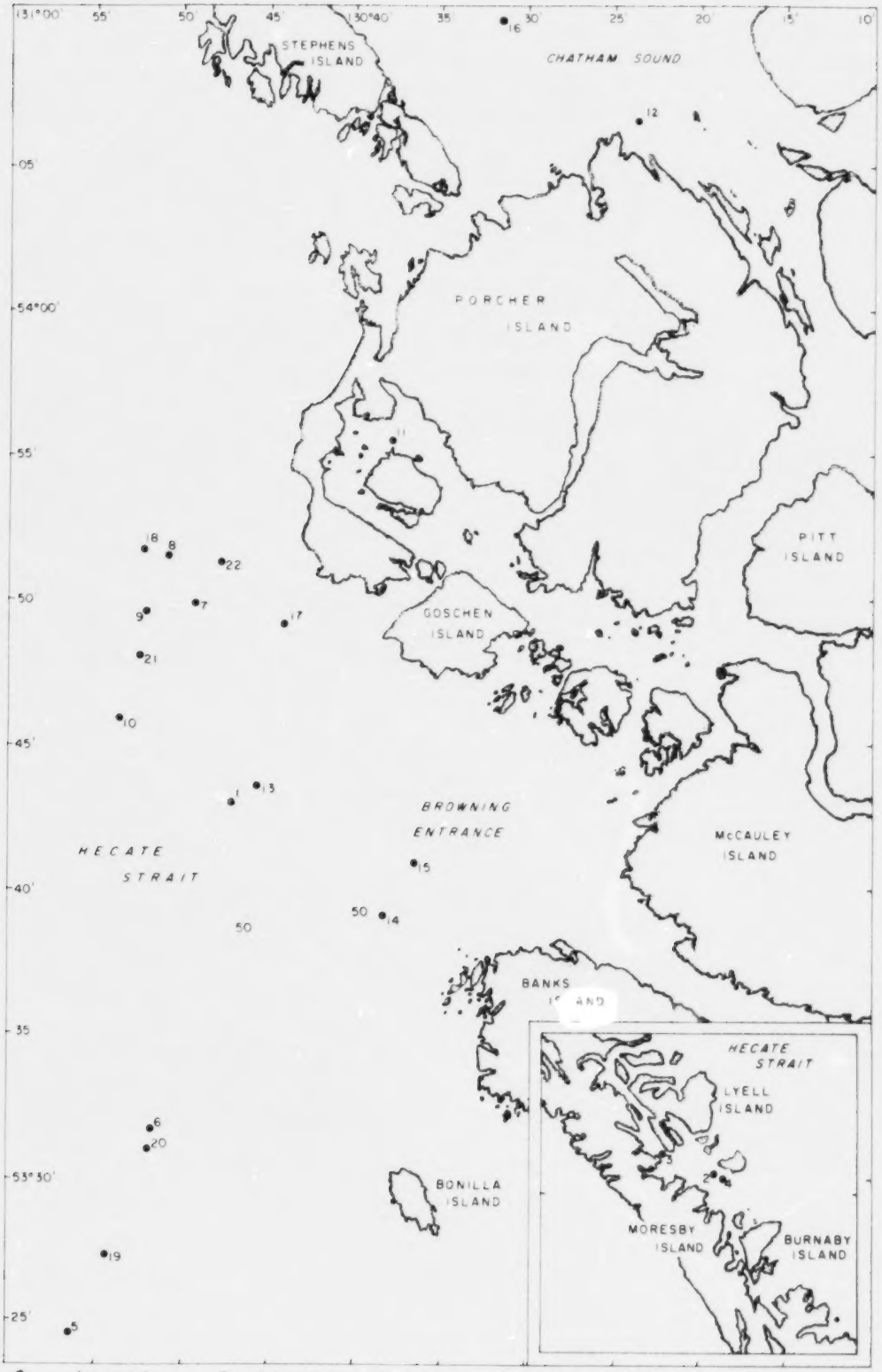

Fig. 6. Locations of midwater and bottom trawl tows of the F/V SUNNFJORD, Nov. 26-Dec. 12, 1985.

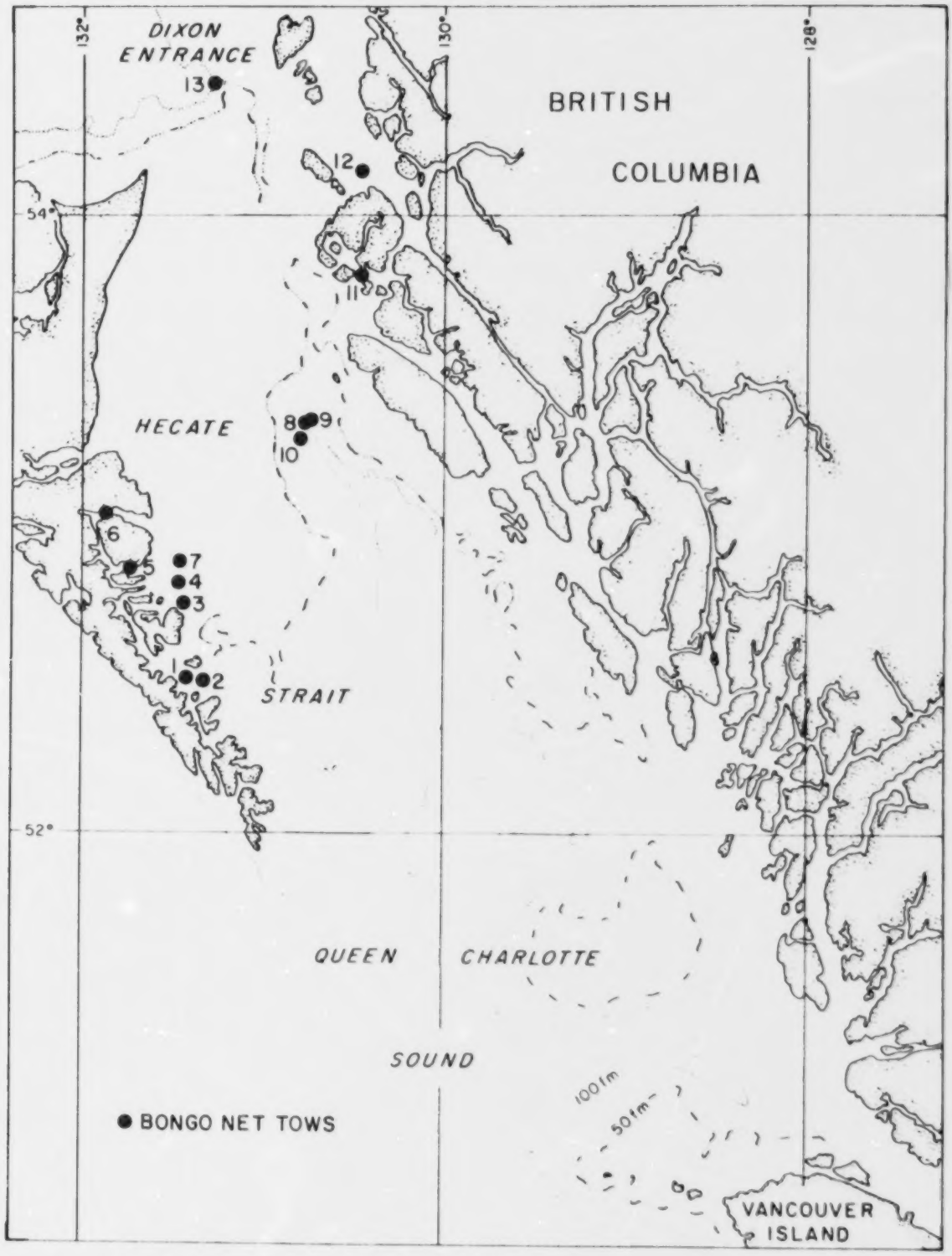

Fig. 7. Locations of bongo net tows of the G.B. REED, Nov. 26 - Dec. 12, 1985.

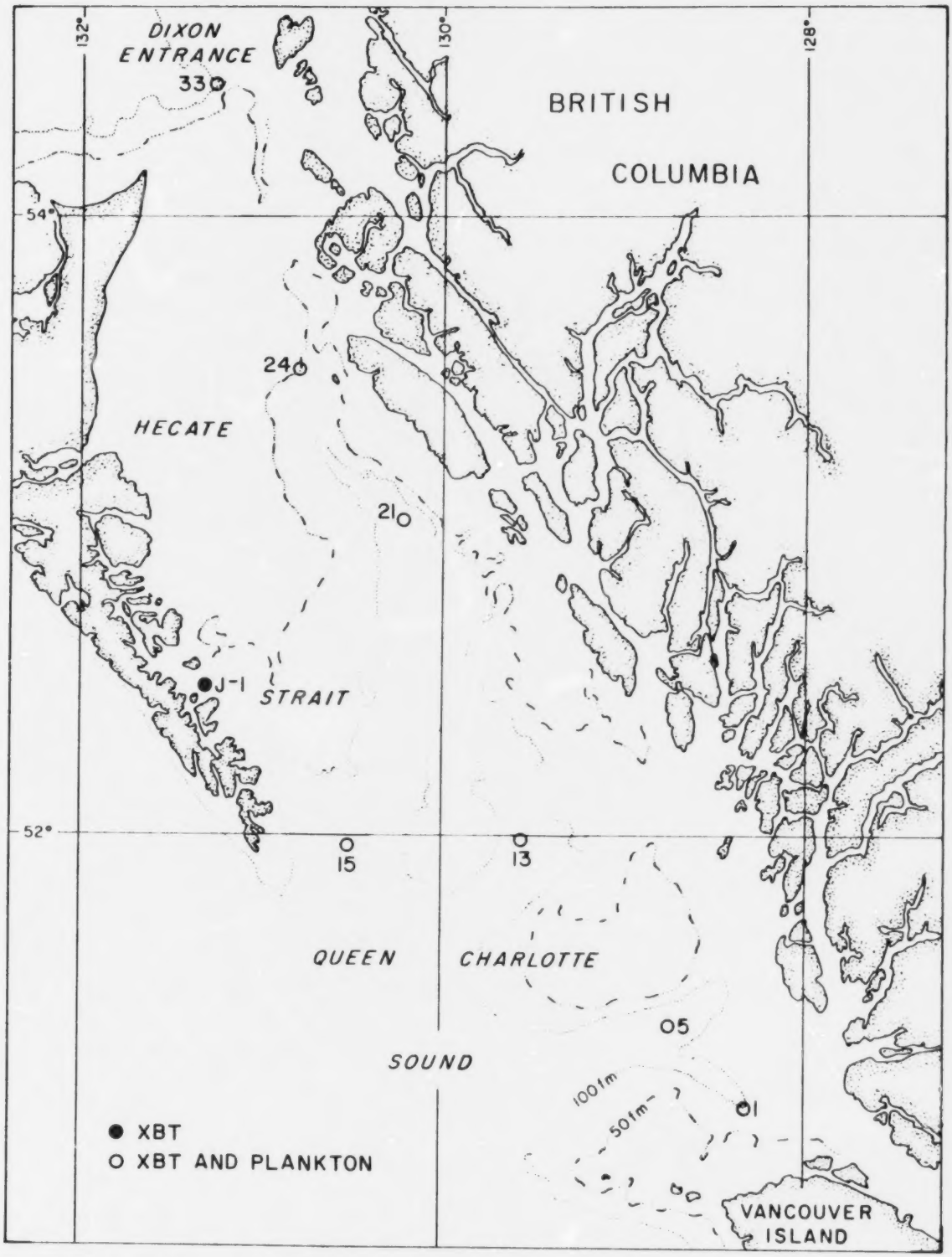

Fig. 8. Locations of XBT and plankton stations of the G.B. REED, Nov. 26-Dec. 12, 1985.

Appendix table 1. Cruise schedule of the G.B. REED, Nov. 26 to Dec. 12, 1985.

Date	Time	Activity
26 Nov	20:00	REED leaves PBS for Hecate Strait
27	17:45	XBT station #1 and vertical plankton haul
	20:05	XBT station #5 and vertical plankton haul
28	00:35	XBT station #13 and vertical plankton haul
	04:55	XBT station #15 and vertical plankton haul
	10:00	Anchor in Section Cove, Koya Island
		Meet SUNNFJORD, Per Engelund, Doug Miller
	14:05	Transects A1-A3, S.E. coast of Queen Charlotte Islands
	16:03	Transects A-D, Juan Perez offshore, Fig. 1b
	22:57	Transects J1-J3, Juan Perez Sound, Fig. 1a
29	00:25	Transects J3-J9, Juan Perez Sound, Fig. 1a
	08:20	Bongo tow #1, Juan Perez Sound
	08:48	Bongo tow #2, Juan Perez Sound
	09:30	XBT station J-1, Juan Perez Sound
	10:13	Transects J1-J9, Juan Perez Sound, Fig. 1a
	15:59	Transects J14-J16, Juan Perez Sound
	17:19	Transects F-L, Juan Perez offshore, Fig. 1b
	22:41	Anchor in Beljay Bay
30	08:37	Bongo tow #3, Atli Inlet
	09:17	Transects S1-S3, Atli Inlet, Fig. 1c
	12:00	Bongo tow #4, Laskeek Bay
	12:22	Transects S4-S6, Selwyn Inlet, Fig. 1c
	14:57	Bongo tow #5, Selwyn Inlet
	15:20	Transects S9-S17, Cumshewa Inlet, Fig. 1c
	19:12	Bongo tow #6, Cumshewa Inlet
	19:40	Transects S19-S23, Cumshewa Inlet repeat transects
	21:35	Bongo tow #7, NE Reef Island
	22:10	Transects N1, N, HO
1 Dec	01:19	Transects H10-H26, SW Bonilla Island
	08:20	Bongo tow #8, SW Bonilla Island
	08:52	Transects H27-H37, SW Bonilla Island, Fig. 2
	13:30	XBT station #24 and vertical plankton haul
	13:45	Bongo tow #9, W Bonilla Island
	15:09	Transects H27-H22, SW Bonilla Island, Fig. 2
	20:20	Bongo tow #10, SW Bonilla Island
2	00:35	Anchor in Willis Bay
	09:50	Transects 22-29, Browning Entrance, short transects
	15:00	Transects 28-23, 24 hr survey, coverage 1, Fig. 4a
	18:21	Transects 28-23, 24 hr survey, coverage 2, Fig. 4b
3	00:15	Transects 28-23, 24 hr survey, coverage 3, Fig. 4c
	05:57	Transects 28-23, 24 hr survey, coverage 4, Fig. 4d
	16:06	Transects 26-25
	21:49	Anchor in Willis Bay
4	12:20	Bongo tow #11, Kitkatla Inlet
	12:40	Transects K1-K5, Kitkatla Inlet
	14:31	Transects K5-K1, Kitkatla Inlet, Fig. 3b
	16:40	Anchor in Kitkatla Inlet

Appendix table 1 (cont'd)

Date	Time	Activity
5	12:49	C1-C13, Chatham Sound, Fig. 3b
	18:50	Bongo tow #12, Chatham Sound
	20:00	Anchor in Refuge Bay
6	11:25	Transects 23-13, Browning Entrance
	20:41	Transects Q1-Q5
	23:03	Transects 30-32, Butterworth Edge, Fig. 3b
7	00:27	Transects 34-55, Butterworth Edge, Fig. 3b
	11:59	XBT station #33 and vertical plankton haul
	12:30	Bongo tow #13, Two Peaks
	17:22	Dock at Seal cove, Prince Rupert
8	12:52	Transects 29-17, Browning Entrance, Fig. 3a
9	01:11	Transects 16-13, Browning Entrance, Fig. 3a
	05:10	Transects N38-N25, SW Bonilla Island, coverage 2
	12:12	Transects 14-15, 18-19
	13:35	Transects 23-25
	16:30	Transects 26S-19S, 24 hr survey, coverage 1, Fig. 5a
	19:08	D. Hay transfers to SUNNFJORD
	21:40	Transects 26S-19S, 24 hr survey, coverage 2, Fig. 5b
10	01:11	Transects 24-25
	05:17	Transects 26S-19S, 24 hr survey, coverage 3, Fig. 5c
	08:44	Transects 26S-19S, 24 hr survey, coverage 4, Fig. 5d
	12:24	D. Hay returns to REED, head for PBS
	18:29	XBT station #21 and vertical plankton haul
12	07:12	Dock at PBS

Appendix table 2. Surface Densities and Biomass Estimates of G.B. REED cruise 85E, November 26 to December 12, 1985. A command driven program is used for the calculations. It uses the following commands:

Command	Comment
IEI	Input echo integration data file
DAT	Date
TIM	Time and location of beginning of transect - lat/long (deg/min)
TRA	Transect sequence number, transect name, ! area coverage name, first and last printout number, ping number, distance (nm), bearing (deg), delta t (hrs), speed (K)
ZER	Zero cummulative estimates
WID	Width (nm) set for area calculations
DEP	Depth strata (m) set for biomass calculations
FIR	First printout to be processed
LAS	Last printout to be processed
LZE	Set surface density and biomass estimate to zero
OUT	Output cummulative data
LOU	LAS + OUT
EXI	Close file, exit

For each transect the surface densities are given by printout in a column that is headed by SURF/D KG/M2. This is followed by the average surface densities for the transect and a cummulative surface density estimate. A new cummulative surface density estimate is started after each *ZER command. A further column gives local and total biomass estimates which are obtained by extrapolating the surface densities to appropriated areas.

Biomass and surface density estimates were set at zero for several printouts where bottom integration was a problem. These printouts or portions of printouts are identified by the *LZE command. In one occasion a towed bongo net was integrated (Seq No 95, PO No 30) giving an unrealisticly large estimate which was reset at zero.

```
*!!
*DAT 28-NOV-85
*IEI ÑHYDRO.BRUCE86ñ85E002.INT
*!
*! TIM  Time  Lat  Long  ! Comment (area coverage name)
*! TRA  Seq-#  Tra-name  First-PO#
*!     Last-PO# PING#  Distance(nm)  Bearing(deg)  Delta-t(hrs)  Speed(K)
*!-------------------------------------------------------------------------
*TIM 16:03:00  52 22.84 131  5.63            ! Juan Perez offshore
*TRA      4      A     22      37   4600  12.912  44.304   1.533   8.421
*ZER
*WID 2.2
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
22	1	300	0	4.07	6.35	96.4	76.4	81.2	15.3	2.62E-04	1.66E+03
23	1	300	0	4.07	6.35	100.9	80.9	41.8	59.1	1.28E-04	8.15E+02

```
      24    1  300    0  4.07   6.35 104.6  84.6  86.6  18.0  2.84E-04  1.80E+03
      25    1  300    0  4.07   6.35 105.9  85.9  91.2  14.7  2.40E-04  1.53E+03
      26    1  300    0  4.07   6.35 103.1  83.1  89.0  14.1  1.57E-04  9.95E+02
      27    1  300    0  4.07   6.35 102.0  82.0  86.2  15.9  3.79E-05  2.41E+02
      28    1  300    0  4.07   6.35 103.1  83.1  89.3  13.8  4.55E-04  2.89E+03
      29    1  300    0  4.07   6.35 110.6  90.6 102.3   8.2  7.13E-04  4.53E+03
      30    1  300    0  4.07   6.35 105.1  85.1  87.2  17.9  1.52E-05  9.64E+01
      31    1  300    0  4.07   6.35 103.3  83.3  49.7  53.5  1.60E-04  1.02E+03
      32    1  300    0  4.07   6.35  92.7  72.7  86.0   6.7  1.90E-03  1.21E+04
      33    1  300   10  4.07   6.35  85.0  65.0  82.0   3.0  1.39E-03  8.82E+03
      34    1  300    0  4.07   6.35  83.2  63.2  79.6   3.6  1.75E-04  1.11E+03
      35    1  300    0  4.07   6.35  87.3  67.3  80.7   6.5  6.05E-04  3.85E+03
      36    1  300    0  4.07   6.35 100.4  80.4  92.0   8.5  5.61E-04  3.56E+03
      37    1  100    0  4.07   2.12   5.1   0.1 105.8   6.3  5.56E-07  1.18E+00

   N      P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #      #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
  16   4600  23.9  97.4  96.9  77.2  85.4   9.9  14.8 5.98E-06 4.62E-04 4.50E+04
  16   4600  23.9  97.4  96.9  77.2  85.4   9.9  14.8 5.98E-06 4.62E-04 4.50E+04
*!
*TIM 17:53:00  52 33.92 130 52.81
*TRA      6      8     41      52   3600   9.966 224.568   1.033   9.645
*FIR 41
*LAS 50
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D  BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2       KG
     41    1  300    0  4.07   6.27 123.5 103.5 108.1  15.4  5.40E-05  3.38E+02
     42    1  300    0  4.07   6.27  78.7  58.7  72.2   6.5  6.80E-05  4.26E+02
     43    1  300    0  4.07   6.27  83.4  63.4  81.5   1.9  4.55E-04  2.85E+03
     44    1  300    0  4.07   6.27 113.8  93.8 106.5   7.3  1.12E-02  7.05E+04
     45    1  300    0  4.07   6.27 124.1 104.1 114.2   9.9  3.07E-03  1.93E+04
     46    1  300    0  4.07   6.27 125.2 105.2 118.1   7.0  2.35E-03  1.47E+04
     47    1  300    0  4.07   6.27 133.7 113.7 127.4   6.2  1.88E-03  1.18E+04
     48    1  300    0  4.07   6.27 127.7 107.7 119.0   8.6  1.92E-04  1.20E+03
     49    1  300    0  4.07   6.27 105.1  85.1  92.2  12.9  2.13E-03  1.33E+04
     50    1  300    0  4.07   6.27 107.9  87.9  90.4  17.5  2.22E-04  1.39E+03
*LZE 51
     51    1  300    5  4.07   6.27  68.7  48.7   0.0   0.0  0.00E+00  0.00E+00
*LOU 52
     52    1  300    0  4.07   6.27  58.5  38.5  53.1   5.4  5.24E-04  3.28E+03

   N      P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #      #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
  12   3600  18.5  75.2 104.2  84.2 107.3   8.0   7.4 2.20E-05 1.85E-03 1.39E+05
  28   8200  42.4 172.6 100.0  80.2 102.0   8.5   9.2 1.33E-05 1.07E-03 1.84E+05

*!
*IEI 85E003.INT
*TIM 19:12:00  52 28.69 131  6.38
*TRA      8      C      1      15   4474  12.717  44.887   1.483   8.573
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D  BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2       KG
      1    1  300    1  4.07   6.43  60.9  40.9  56.6   4.4  8.27E-05  5.32E+02
```

2	1	300	0	4.07	6.43	86.5	66.5	84.2	2.2	1.33E-04	8.53E+02
3	1	300	0	4.07	6.43	130.8	110.8	93.2	37.7	5.76E-04	3.71E+03
4	1	300	0	4.07	6.43	144.2	124.2	114.6	29.5	4.42E-04	2.84E+03
5	1	300	0	4.07	6.43	175.3	155.3	131.2	44.1	1.52E-03	9.75E+03
6	1	300	0	4.07	6.43	158.7	138.7	141.8	16.9	8.77E-04	5.64E+03
7	1	300	0	4.07	6.43	125.7	105.7	119.3	6.4	1.92E-04	1.24E+03
8	1	300	0	4.07	6.43	120.8	100.8	89.3	31.5	9.67E-05	6.22E+02
9	1	300	0	4.07	6.43	120.5	100.5	70.9	49.5	6.14E-05	3.95E+02
10	1	300	0	4.07	6.43	118.2	98.2	104.2	14.0	9.86E-05	6.35E+02
11	1	300	0	4.07	6.43	84.3	64.3	77.0	7.3	1.60E-05	1.03E+02
12	1	300	0	4.07	6.43	79.9	59.9	67.2	12.7	2.54E-05	1.64E+02
13	1	300	0	4.07	6.43	82.1	62.1	65.5	16.6	1.30E-05	8.35E+01
14	1	300	0	4.07	6.43	85.4	65.4	72.7	12.7	9.94E-06	6.40E+01
15	1	274	0	4.07	5.88	87.4	67.4	80.5	6.9	1.19E-05	6.99E+01

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
15	4474	23.6	96.0	110.8	90.8	119.3	30.5	7.3	3.06E-06	2.78E-04	2.67E+04
43	12674	65.9	268.6	103.9	84.0	104.1	11.3	9.0	9.34E-06	7.85E-04	2.11E+05

```
*!
*TIM 20:57:00  52 38.59 130 55.12
*TRA     10      D      19      33   4254  12.898 225.251   1.400   9.213
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
19	1	300	0	4.07	6.86	75.1	55.1	69.4	5.7	2.36E-05	1.62E+02
20	1	300	0	4.07	6.86	76.8	56.8	70.9	5.9	6.43E-06	4.41E+01
21	1	300	0	4.07	6.86	76.6	56.6	62.3	14.3	2.26E-05	1.55E+02
22	1	300	0	4.07	6.86	85.1	65.1	78.2	7.0	4.54E-05	3.12E+02
23	1	300	0	4.07	6.86	97.8	77.8	85.0	12.8	3.05E-05	2.09E+02
24	1	300	0	4.07	6.86	95.7	75.7	80.3	15.4	1.31E-05	9.01E+01
25	1	300	0	4.07	6.86	99.3	79.3	90.1	9.2	4.50E-05	3.09E+02
26	1	300	0	4.07	6.86	107.0	87.0	99.9	7.1	1.24E-04	8.51E+02
27	1	300	0	4.07	6.86	134.1	114.1	128.6	5.5	5.85E-04	4.02E+03
28	1	300	0	4.07	6.86	154.5	134.5	139.3	15.2	1.40E-02	9.63E+04
29	1	300	0	4.07	6.86	164.2	144.2	149.4	14.9	5.56E-03	3.82E+04
30	1	300	0	4.07	6.86	164.2	144.2	133.9	30.3	1.62E-03	1.11E+04
31	1	300	0	4.07	6.86	93.5	73.5	81.5	12.0	1.28E-03	8.78E+03
32	1	300	0	4.07	6.86	67.3	47.3	59.6	7.7	4.06E-04	2.79E+03
33	1	54	0	4.07	1.24	72.7	52.7	65.7	7.0	2.95E-04	3.64E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
15	4254	23.9	97.3	106.1	86.1	135.7	15.5	16.9	1.95E-05	1.68E-03	1.64E+05
58	16928	89.8	365.9	104.5	84.6	117.9	13.1	12.4	1.21E-05	1.02E-03	3.74E+05

```
*!-------------------------------------------------------------------------------
*TIM 22:57:00  52 31.74 131 18.89                 ! Juan Perez Sound - Night
*TRA     12     J1      40      45   1623   4.946 219.250   0.550   8.992
*ZER
*WID 1.0
```

*DEP 20,80
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
40	1	300	0	1.85	3.14	80.0	60.0	40.3	39.7	1.12E-03	3.51E+03
41	1	300	24	1.85	3.14	80.0	60.0	43.4	36.6	5.39E-03	1.69E+04
42	1	300	8	1.85	3.14	80.0	60.0	55.5	24.5	4.93E-03	1.55E+04
43	1	300	33	1.85	3.14	68.5	48.5	41.1	27.4	1.24E-02	3.88E+04
44	1	300	0	1.85	3.14	79.0	59.0	54.4	24.6	8.24E-03	2.58E+04
45	1	123	0	1.85	1.29	80.0	60.0	64.0	16.0	3.15E-03	4.05E+03

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
6	1623	9.2	17.0	77.7	57.7	47.7	27.8	5.5	1.07E-04	6.16E-03	1.05E+05
6	1623	9.2	17.0	77.7	57.7	47.7	27.8	5.5	1.07E-04	6.16E-03	1.05E+05

*!
*TIM 23:38:00 52 28.61 131 25.50
*TRA 14 J2 48 53 1742 4.582 38.825 0.617 7.431
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
48	1	300	0	1.85	2.71	77.4	57.4	47.9	29.5	3.85E-03	1.04E+04
49	1	300	0	1.85	2.71	78.3	58.3	32.0	46.3	1.19E-02	3.21E+04
50	1	300	37	1.85	2.71	76.5	56.5	50.4	26.1	2.96E-03	8.00E+03
51	1	300	26	1.85	2.71	80.0	60.0	38.4	41.6	6.46E-03	1.75E+04
52	1	300	23	1.85	2.71	80.0	60.0	42.6	37.4	7.10E-04	1.92E+03
53	1	242	0	1.85	2.18	80.0	60.0	41.2	38.8	9.20E-04	2.01E+03

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
6	1742	8.5	15.7	78.7	58.7	38.5	40.0	3.1	7.80E-05	4.58E-03	7.19E+04
12	3365	17.6	32.7	78.2	58.2	43.9	32.8	4.5	9.29E-05	5.40E-03	1.76E+05

*!
*DAT 29-NOV-85
*TIM 00:25:00 52 32.00 131 22.79
*TRA 16 J3 56 60 1315 4.219 219.404 0.450 9.376
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
56	1	300	42	1.85	3.30	71.7	51.7	44.0	27.7	4.05E-02	1.34E+05
57	1	300	7	1.85	3.30	80.0	60.0	35.6	44.4	4.96E-02	1.64E+05
58	1	300	1	1.85	3.30	80.0	60.0	47.6	32.4	4.72E-01	1.56E+06
59	1	300	0	1.85	3.30	74.0	54.0	37.6	36.3	1.51E-02	5.00E+04
60	1	115	0	1.85	1.27	52.7	32.7	46.0	6.7	4.06E-03	5.14E+03

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
5	1315	7.8	14.5	74.3	54.3	46.1	33.1	4.1	2.43E-03	1.32E-01	1.91E+06
17	4680	25.5	47.2	77.0	57.0	45.9	33.1	4.1	7.77E-04	4.43E-02	2.09E+06

*!
*TIM 01:00:00 52 30.03 131 27.51
*TRA 18 J4 63 66 950 2.917 39.208 0.333 8.750
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
63	1	300	19	1.85	3.16	79.5	59.5	46.9	32.6	7.75E-03	2.45E+04
64	1	300	0	1.85	3.16	80.0	60.0	40.4	39.6	1.60E-01	5.05E+05
65	1	300	0	1.85	3.16	80.0	60.0	37.6	42.4	1.53E-01	4.82E+05
66	1	50	0	1.85	0.53	80.0	60.0	37.8	42.2	3.79E-02	1.99E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	950	5.4	10.0	79.8	59.8	39.2	40.8	3.4	1.72E-03	1.03E-01	1.03E+06
21	5630	30.9	57.2	77.5	57.5	43.7	35.7	3.9	9.49E-04	5.46E-02	3.12E+06

*!
*TIM 01:25:00 52 32.62 131 25.39
*TRA 20 J5 69 71 721 2.541 227.098 0.250 10.165
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
69	1	300	168	1.85	3.63	79.4	59.5	44.1	35.3	6.93E-02	2.51E+05
70	1	300	64	1.85	3.63	80.0	60.0	42.4	37.6	6.73E-02	2.44E+05
71	1	121	5	1.85	1.46	80.0	60.0	51.7	28.3	2.40E-03	3.51E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	721	4.7	8.7	79.8	59.8	43.3	36.4	2.0	9.58E-04	5.73E-02	4.99E+05
24	6351	35.6	65.9	77.8	57.8	43.6	35.8	3.6	9.50E-04	5.49E-02	3.62E+06

*!
*TIM 01:48:00 52 31.58 131 29.64
*TRA 22 J6 74 76 764 2.229 39.485 0.250 8.914
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
74	1	300	7	1.85	3.00	80.0	60.0	42.5	37.5	3.23E-02	9.69E+04
75	1	300	0	1.85	3.00	80.0	60.0	43.9	36.1	8.15E-02	2.45E+05
76	1	164	18	1.85	1.64	78.4	58.4	45.4	33.0	1.11E-01	1.82E+05

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	764	4.1	7.6	79.7	59.7	44.2	35.3	2.6	1.15E-03	6.84E-02	5.23E+05
27	7115	39.7	73.5	78.0	58.0	43.7	35.7	3.5	9.72E-04	5.63E-02	4.14E+06

*!
*TIM 02:10:00 52 33.90 131 28.65
*TRA 24 J7 79 81 896 2.731 220.059 0.300 9.102
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
79	1	300	6	1.85	3.14	80.0	60.0	47.9	32.1	9.52E-02	2.98E+05

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     80    1  300    0  1.85   3.14  80.0  60.0  43.6  36.4  4.06E-02  1.27E+05
     81    1  296    8  1.85   3.09  74.5  54.5  56.4  18.1  3.75E-03  1.16E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   3   896   5.1   9.4  78.2  58.2  46.9  33.0   1.4 8.02E-04 4.67E-02 4.37E+05
  30  8011  44.8  82.9  78.0  58.0  44.0  35.4   3.3 9.52E-04 5.52E-02 4.58E+06

*!
*TIM 02:35:00  52 32.89 131 32.63
*TRA     26     J8     84      86    875   2.633  44.754   0.283   9.294
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
     84    1  300    9  1.85   3.10  67.3  47.3  37.0  30.3  1.70E-02  5.27E+04
     85    1  300    2  1.85   3.10  80.0  60.0  49.8  30.2  2.02E-02  6.27E+04
     86    1  275   13  1.85   2.84  79.4  59.4  53.3  26.2  3.57E-02  1.01E+05

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   3   875   4.9   9.0  75.5  55.5  48.3  28.3   2.9 4.33E-04 2.40E-02 2.17E+05
  33  8886  49.6  91.9  77.8  57.8  44.2  35.1   3.3 9.03E-04 5.22E-02 4.80E+06

*!
*TIM 02:58:00  52 35.35 131 30.30
*TRA     28     J9     88      90    878   2.684 219.524   0.283   9.471
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
     88    1  300   21  1.85   3.15  78.1  58.1  70.7   7.4  3.79E-02  1.19E+05
     89    1  300    8  1.85   3.15  76.5  56.5  63.5  12.9  1.81E-02  5.71E+04
     90    1  278   25  1.85   2.91  73.2  53.2  53.7  19.5  3.73E-03  1.09E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   3   878   5.0   9.2  76.0  56.0  67.5   9.8   1.6 3.63E-04 2.03E-02 1.87E+05
  36  9764  54.6 101.1  77.6  57.6  45.1  34.2   3.2 8.55E-04 4.93E-02 4.98E+06

*!-------------------------------------------------------------------------------
*IEI 85E004.INT
*TIM 10:13:00  52 31.74 131 18.89            ! Juan Perez Sound - Day
*TRA     30     J1      1       6   1653   4.946 219.250   0.533   9.273
*ZER
*DEP 120,200
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
      1    1  300   12  1.85   3.08 197.5  77.5 184.4  13.2  1.95E-02  6.00E+04
      2    1  300    3  1.85   3.08 174.3  54.3 167.8   6.6  1.80E-02  5.55E+04
      3    1  300    0  1.85   3.08 155.0  35.0 151.7   3.2  6.90E-03  2.12E+04
      4    1  300   15  1.85   3.08  78.8   0.9 120.9 -42.1  1.41E-03  4.34E+03
      5    1  300    0  1.85   3.08  90.9   0.0   0.0   0.0  0.00E+00  0.00E+00
      6    1  153    0  1.85   1.57 100.6   0.0   0.0   0.0  0.00E+00  0.00E+00
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N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
6	1653	9.2	17.0	135.7	30.4	171.0	7.4	2.1	2.73E-04	8.32E-03	1.41E+05
6	1653	9.2	17.0	135.7	30.4	171.0	7.4	2.1	2.73E-04	8.32E-03	1.41E+05

*!
*TIM 10:54:00 52 28.61 131 25.50
*TRA 32 J2 9 15 1853 4.582 38.825 0.600 7.637
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
9	1	300	0	1.85	2.54	74.5	0.0	0.0	0.0	0.00E+00	0.00E+00
10	1	300	3	1.85	2.54	103.9	0.0	0.0	0.0	0.00E+00	0.00E+00
11	1	300	85	1.85	2.54	101.4	10.0	146.6	-45.2	1.00E-01	2.56E+05
12	1	300	103	1.85	2.54	192.9	72.9	164.1	28.8	2.30E+00	5.86E+06
13	1	300	76	1.85	2.54	196.3	76.3	175.6	20.7	1.57E-01	4.00E+05
14	1	300	0	1.85	2.54	200.0	80.0	171.2	28.8	1.31E-03	3.33E+03
15	1	53	0	1.85	0.45	200.0	80.0	177.5	22.5	1.51E-03	6.81E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	1853	8.5	15.7	146.4	41.0	164.1	25.4	4.8	1.01E-02	4.15E-01	6.52E+06
13	3506	17.6	32.7	140.9	35.5	164.3	25.0	4.8	5.74E-03	2.04E-01	6.66E+06

*!
*TIM 11:42:00 52 32.00 131 22.79
*TRA 34 J3 18 21 1171 4.219 219.404 0.400 10.548
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
18	1	300	73	1.85	3.71	109.8	28.8	156.0	-46.2	3.96E-02	1.47E+05
19	1	300	32	1.85	3.71	199.3	79.3	172.3	27.1	2.46E-01	9.11E+05
20	1	300	71	1.85	3.71	119.4	10.2	160.4	-41.0	1.89E+00	7.01E+06
21	1	271	0	1.85	3.35	64.7	0.0	0.0	0.0	0.00E+00	0.00E+00

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
4	1171	7.8	14.5	124.8	30.3	161.7	-33.4	4.7	1.84E-02	5.57E-01	8.06E+06
17	4677	25.5	47.2	135.9	33.9	162.8	-7.0	4.7	9.20E-03	3.12E-01	1.47E+07

*!
*TIM 12:16:00 52 30.03 131 27.51
*TRA 36 J4 24 27 985 2.917 39.208 0.283 10.294
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
24	1	200	12	1.85	2.03	167.2	49.1	161.1	6.1	6.17E-03	1.25E+04
25	1	300	18	1.85	3.05	200.0	80.0	153.7	46.3	8.48E-02	2.58E+05
26	1	185	17	1.85	1.88	189.9	69.9	153.4	36.5	8.99E-01	1.69E+06

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	685	3.8	7.0	187.7	68.2	153.5	37.6	3.1	4.13E-03	2.82E-01	1.96E+06
20	5362	29.2	54.1	142.6	38.3	161.7	-1.7	4.5	8.04E-03	3.08E-01	1.67E+07

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*!
*IEI 85E005.INT
*TIM 12:38:00  52 32.62 131 25.39
*TRA     38      J5       1        1    297   2.541 227.098   0.250  10.165
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
      1    1  297    1  1.85   8.72 193.1  73.1 156.1  37.0  4.44E+00  3.87E+07

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3   KG/M2         KG
   1   297   4.7   8.7 193.1  73.1 156.1  37.0   2.4 6.08E-02 4.44E+00 3.87E+07
  21  5659  33.9  62.8 149.6  43.2 157.8  25.4   3.0 2.04E-02 8.82E-01 5.54E+07

*!
*TIM 12:59:00  52 31.58 131 29.64
*TRA     40      J6       3        5    689   2.229  39.485   0.233   9.551
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
      3    1  300    0  1.85   3.33 193.0  73.0 183.0  10.0  5.80E-01  1.93E+06
      4    1  300    0  1.85   3.33 192.9  72.9 168.3  24.7  2.22E+00  7.40E+06
      5    1   89    0  1.85   0.99 192.9  72.9 148.8  44.1  7.91E+00  7.81E+06

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3   KG/M2         KG
   3   689   4.1   7.6 193.0  73.0 161.1  31.9   3.0 3.07E-02 2.24E+00 1.71E+07
  24  6348  38.1  70.5 154.3  46.4 158.6  26.9   3.0 2.22E-02 1.03E+00 7.26E+07

*!
*TIM 13:19:00  52 33.90 131 28.65
*TRA     42      J7       8       10    842   2.731 220.059   0.267  10.240
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
      8    1  300    0  1.85   3.34 193.0  73.0 157.7  35.2  9.46E+00  3.16E+07
      9    1  300    0  1.85   3.34 193.0  73.0 171.6  21.4  6.43E-01  2.15E+06
     10    1  242    0  1.85   2.69 193.0  73.0 148.3  44.6  4.61E+00  1.24E+07

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3   KG/M2         KG
   3   842   5.1   9.4 193.0  73.0 155.8  37.1   1.9 6.75E-02 4.92E+00 4.61E+07
  27  7190  43.1  79.8 158.8  49.5 157.5  30.9   2.6 3.00E-02 1.49E+00 1.19E+08

*!
*TIM 13:43:00  52 32.89 131 32.63
*TRA     44      J8      13       15    900   2.633  44.754   0.317   8.316
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
     13    1  300    0  1.85   3.01 192.9  72.9 167.6  25.3  1.53E+01  4.59E+07
     14    1  300    1  1.85   3.01 183.3  63.3 169.8  13.5  1.23E+01  3.69E+07
     15    1  300   17  1.85   3.01 138.5  22.4 147.2  -8.7  8.15E-02  2.45E+05
```

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	900	4.9	9.0	171.6	52.9	168.5	20.0	1.5	1.74E-01	9.20E+00	8.31E+07
30	8090	48.0	88.9	160.1	49.9	162.0	26.4	2.2	4.55E-02	2.27E+00	2.02E+08

```
*!
*TIM 14:08:00  52 35.35 131 30.30
*TRA     46      J9      17      19     900    2.684 219.524    0.283    9.471
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
17	1	300	14	1.85	3.07	143.9	28.8	125.4	18.5	2.67E-01	8.18E+05
18	1	300	8	1.85	3.07	114.3	11.6	134.4	-20.1	6.39E-03	1.96E+04
19	1	300	21	1.85	3.07	128.3	30.9	150.6	-22.3	5.31E-03	1.63E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	900	5.0	9.2	128.8	23.8	126.1	16.8	0.9	3.90E-03	9.27E-02	8.54E+05
33	8990	53.0	98.1	157.2	47.4	161.9	26.3	2.2	4.36E-02	2.07E+00	2.03E+08

```
*!-------------------------------------------------------------------------------
*TIM 17:19:00  52 32.23 131 16.10              ! Juan Perez offshore
*TRA     56       F      50      57    2400    5.983  46.077    0.800    7.478
*ZER
*WID 4.5
*DEP 20,200
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
50	1	300	0	8.33	11.54	192.6	172.6	129.0	63.6	6.64E-04	7.67E+03
51	1	300	0	8.33	11.54	141.4	121.4	122.8	18.7	1.48E-03	1.71E+04
52	1	300	0	8.33	11.54	135.0	115.0	120.3	14.7	6.90E-04	7.97E+03
53	1	300	0	8.33	11.54	130.2	110.2	120.5	9.7	2.89E-03	3.34E+04
54	1	300	0	8.33	11.54	130.2	110.2	118.2	12.0	7.33E-03	8.47E+04
55	1	300	0	8.33	11.54	127.3	107.3	119.5	7.9	2.37E-03	2.74E+04
56	1	300	0	8.33	11.54	113.4	93.4	111.3	2.0	4.64E-03	5.36E+04
57	1	300	0	8.33	11.54	107.2	87.2	88.1	19.1	1.88E-04	2.17E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2400	11.1	92.3	134.7	114.7	117.6	11.3	6.3	2.21E-05	2.53E-03	2.34E+05
8	2400	11.1	92.3	134.7	114.7	117.6	11.3	6.3	2.21E-05	2.53E-03	2.34E+05

```
*!
*TIM 18:07:00  52 36.38 131  9.01
*TRA     57       G      58      63    1797    4.981 344.527    0.617    8.077
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
58	1	300	0	8.33	12.83	104.5	84.5	73.8	30.7	1.01E-04	1.30E+03
59	1	300	0	8.33	12.83	81.8	61.8	43.3	38.5	6.02E-05	7.72E+02
60	1	300	0	8.33	12.83	66.0	46.0	30.2	35.8	3.41E-05	4.38E+02
61	1	300	0	8.33	12.83	60.0	40.0	31.0	28.9	1.02E-05	1.31E+02

62	1	300	0	8.33	12.83	80.9	60.9	41.3	39.6	2.27E-05	2.91E+02
63	1	297	0	8.33	12.71	70.3	50.3	40.4	29.9	2.22E-05	2.83E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
6	1797	9.2	76.9	77.3	57.3	52.9	34.0	3.0	7.31E-07	4.18E-05	3.22E+03
14	4197	20.3	169.2	108.6	88.6	116.7	11.6	6.2	1.58E-05	1.40E-03	2.37E+05

*!
*TIM 18:44:00 52 41.18 131 11.20
*TRA 58 H 64 69 1693 5.950 226.712 0.533 11.157
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
64	1	300	2	8.33	16.27	58.4	38.4	29.7	28.7	1.79E-05	2.91E+02
65	1	300	0	8.33	16.27	69.7	49.7	28.6	41.1	7.14E-06	1.16E+02
66	1	300	0	8.33	16.27	97.0	77.0	79.8	17.2	5.03E-05	8.19E+02
67	1	300	0	8.33	16.27	129.9	109.9	112.7	17.2	3.58E-03	5.83E+04
68	1	300	1	8.33	16.27	113.8	93.8	95.3	18.5	4.10E-04	6.67E+03
69	1	193	0	8.33	10.47	120.7	100.7	101.9	18.8	1.37E-04	1.43E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
6	1693	11.0	91.8	96.8	76.8	109.9	17.4	7.0	9.59E-06	7.37E-04	6.76E+04
20	5890	31.3	261.1	104.5	84.5	115.2	12.9	6.4	1.38E-05	1.17E-03	3.05E+05

*!
*TIM 19:16:00 52 37.10 131 18.34
*TRA 59 I 70 75 1800 5.040 345.076 0.650 7.754
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
70	1	300	0	8.33	12.97	118.1	98.1	100.9	17.2	2.09E-04	2.70E+03
71	1	300	0	8.33	12.97	106.4	86.4	89.5	17.0	7.91E-05	1.03E+03
72	1	300	0	8.33	12.97	99.4	79.4	80.6	18.8	8.07E-05	1.05E+03
73	1	300	0	8.33	12.97	91.4	71.4	65.7	25.7	3.57E-03	4.63E+04
74	1	300	0	8.33	12.97	106.9	86.9	94.3	12.6	2.70E-04	3.50E+03
75	1	300	0	8.33	12.97	102.1	82.1	81.7	20.4	3.04E-02	3.95E+05

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
6	1800	9.3	77.8	104.1	84.1	80.3	20.8	8.2	6.87E-05	5.78E-03	4.49E+05
26	7690	40.7	338.9	104.4	84.4	94.4	17.6	7.5	2.64E-05	2.23E-03	7.54E+05

*!
*TIM 19:55:00 52 41.97 131 20.48
*TRA 60 J 76 81 1720 4.472 47.344 0.517 8.655
*FIR 76
*LAS 76

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
76	1	300	0	8.33	12.04	76.3	56.3	70.1	6.1	1.41E-04	1.70E+03

```
*LZE 77
      77    1  300    0  8.33  12.04  70.5  50.5   0.0   0.0  0.00E+00  0.00E+00
*LOU 81
      78    1  300    0  8.33  12.04  84.2  64.2  80.5   3.7  2.72E-05  3.28E+02
      79    1  300    0  8.33  12.04 104.0  84.0 101.8   2.2  4.66E-05  5.61E+02
      80    1  300    0  8.33  12.04  75.1  55.2  32.9  42.2  3.07E-06  3.70E+01
      81    1  220    0  8.33   8.83  85.5  65.5  67.1  18.4  3.99E-06  3.53E+01

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2       KG
   6  1720   8.3  69.0  82.5  62.5  77.5   5.7   2.2 6.16E-07 3.85E-05 2.66E+03
  32  9410  48.9 407.9 100.7  80.7  94.4  17.6   7.4 2.30E-05 1.86E-03 7.57E+05

*!
*TIM 20:26:00  52 45.00 131 15.05
*TRA     61      K     82      86   1448   4.402 321.603   0.317  13.901
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D  BIOMASS
      #    #    #    #    KM  KM2     M     M     M     M    KG/M2       KG
     82    1  300    0  8.33  14.08  87.0  67.0  44.2  42.8  2.30E-06  3.24E+01
     83    1  300    0  8.33  14.08  84.2  64.2  43.5  40.8  4.55E-06  6.41E+01
     84    1  300    0  8.33  14.08  79.5  59.5  51.8  27.8  9.92E-06  1.40E+02
     85    1  300    0  8.33  14.08  62.3  42.3  54.5   7.7  1.65E-04  2.32E+03
     86    1  248    0  8.33  11.64  78.4  58.4  71.8   6.6  6.22E-06  7.23E+01

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2       KG
   5  1448   8.2  67.9  78.3  58.3  54.5  10.0   5.7 6.65E-07 3.87E-05 2.63E+03
  37 10858  57.1 475.8  97.5  77.5  94.2  17.5   7.4 2.06E-05 1.60E-03 7.59E+05

*!
*TIM 20:45:00  52 48.45 131 19.57
*TRA     62      L     87      92   1734   3.915 227.993   0.667   5.872
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D  BIOMASS
      #    #    #    #    KM  KM2     M     M     M     M    KG/M2       KG
     87    1  300    1  8.33  10.45  74.3  54.3  44.1  30.3  2.27E-06  2.38E+01
     88    1  300    0  8.33  10.45  81.2  61.2  62.7  18.5  1.03E-04  1.07E+03
     89    1  300    0  8.33  10.45 130.1 110.1 120.3   9.8  2.56E-04  2.67E+03
     90    1  300    0  8.33  10.45 136.0 116.0 116.7  19.3  5.93E-03  6.20E+04
     91    1  234    0  8.33   8.15 155.0 135.0 133.9  21.1  6.12E-04  4.99E+03
     92    1  300    7  8.33  10.45 179.0 159.0 158.8  20.2  4.43E-03  4.63E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2       KG
   6  1734   7.3  60.4 124.8 104.8 133.7  19.5   5.3 1.85E-05 1.94E-03 1.17E+05
  43 12592  64.3 536.2 100.5  80.5  99.5  17.8   7.1 2.03E-05 1.63E-03 8.76E+05

*!-------------------------------------------------------------------------------
*DAT 30-NOV-85
*! TIM 08:37:00
*! BON
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*IEI 85E006.INT
*TIM 09:17:00  52 42.75 131 34.87              ! Selwyn & Cumshewa - coverage 1
*TRA     64      S1       4       10    1893    5.155  38.751   0.650   7.930
*ZER
*WID 1.0
*FIR 4
*LAS 8
      PO  SPO    PI  MPI   WID    AREA    DEP    COL    DCS    DCB     SURF/D   BIOMASS
       #    #     #    #    KM     KM2      M      M      M      M     KG/M2        KG
       4    1   300   10  1.85    2.80  105.8   85.8  101.3    4.5  1.10E-02  3.09E+04
       5    1   300    0  1.85    2.80  155.6  135.6  122.8   32.8  1.25E-02  3.50E+04
       6    1   300    0  1.85    2.80  188.6  168.6  139.6   48.9  1.05E-02  2.96E+04
       7    1   300    0  1.85    2.80  192.7  172.7  131.6   61.0  8.99E-03  2.52E+04
       8    1   300    0  1.85    2.80  192.7  172.7  137.8   54.9  4.16E-03  1.17E+04
*LZE 10
       9    1   300   38  1.85    2.80  146.5  126.5    0.0    0.0  0.00E+00  0.00E+00
      10    1    93   22  1.85    0.87  148.9  128.9    0.0    0.0  0.00E+00  0.00E+00
*OUT

   N      P   LEN  AREA    DEP    COL    DCS    DCB   L/C     VOL/D    SURF/D  BIOMASS
   #      #    KM  KM2       M      M      M      M    KM    KG/M3     KG/M2       KG
   7   1893   9.5  17.7 162.9  142.9  124.5   37.1   3.2 5.24E-05  7.48E-03 1.32E+05
   7   1893   9.5  17.7 162.9  142.9  124.5   37.1   3.2 5.24E-05  7.48E-03 1.32E+05

*!
*TIM 09:56:00  52 46.77 131 29.54
*TRA     65      S2      11       14    1100    5.345 298.619   0.583   9.162
*FIR 11
*LZE 11
      PO  SPO    PI  MPI   WID    AREA    DEP    COL    DCS    DCB     SURF/D   BIOMASS
       #    #     #    #    KM     KM2      M      M      M      M     KG/M2        KG
      11    1   300   15  1.85    5.00  116.2   96.2    0.0    0.0  0.00E+00  0.00E+00
*LOU 14
      12    1   300    8  1.85    5.00   65.2   45.2   56.0    9.2  2.31E-04  1.15E+03
      13    1   300    0  1.85    5.00   92.4   72.4   84.7    7.7  2.15E-04  1.08E+03
      14    1   200    8  1.85    3.33   84.4   64.4   90.1   -5.7  1.70E-03  5.67E+03

   N      P   LEN  AREA    DEP    COL    DCS    DCB   L/C     VOL/D    SURF/D  BIOMASS
   #      #    KM  KM2       M      M      M      M    KM    KG/M3     KG/M2       KG
   4   1100   9.9  18.3   90.0   70.0   84.4   -1.7   8.0 6.15E-06  4.31E-04 7.90E+03
  11   2993  19.4  36.0  125.8  105.8  122.3   34.9   3.5 3.68E-05  3.89E-03 1.40E+05

*!
*IEI 85E007.INT
*TIM 10:31:00  52 49.33 131 37.30
*TRA     67      S3       1        5    1396    5.294  90.108   0.700   7.562
*LOU
      PO  SPO    PI  MPI   WID    AREA    DEP    COL    DCS    DCB     SURF/D   BIOMASS
       #    #     #    #    KM     KM2      M      M      M      M     KG/M2        KG
       1    1   300    1  1.85    3.90   85.7   65.7   97.9  -12.2  8.00E-04  3.12E+03
       2    1   300    0  1.85    3.90  115.2   95.2  117.9   -2.7  3.06E-03  1.19E+04
       3    1   300    0  1.85    3.90  131.4  111.4  128.3    3.1  4.77E-03  1.86E+04
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     4    1  300    0  1.85    3.90 145.5 125.5 135.7   9.7  7.99E-03  3.12E+04
     5    1  196    0  1.85    2.55 177.7 157.7 141.6  36.2  5.74E-03  1.46E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   5  1396   9.8  18.2 127.6 107.6 130.9  10.3   6.3 4.07E-05 4.38E-03 7.95E+04
  16  4389  29.3  54.2 126.4 106.4 125.4  26.0   4.5 3.81E-05 4.06E-03 2.20E+05

*!
*! TIM 12:00:00
*! BON
*TIM 12:22:00  52 49.32 131 28.54                ! Use ships transducer
*TRA     69     S4      6       9   1078   3.608 310.229   0.350  10.308
*FIR 6,1
*LAS 8,1
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM  KM2     M     M     M     M   KG/M2       KG
      6    1  300   25  1.85   3.44 174.8 154.8 180.8  -6.0  1.81E-01  6.22E+05
      7    1  300   45  1.85   3.44 130.4 110.4 126.8   3.5  1.03E-02  3.54E+04
      8    1  100    9  1.85   1.15 131.0 111.0 130.1   0.9  4.50E-02  5.17E+04
*LZE 8,3
      8    2  200   44  1.85   2.30 128.7 108.7   0.0   0.0  0.00E+00  0.00E+00
*LOU 9
      9    1  178    0  1.85   2.04 101.7  81.7  89.8  11.9  2.59E-04  5.29E+02

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   5  1078   6.7  12.4 137.8 117.8 174.4  -5.0   1.3 4.87E-04 5.74E-02 7.10E+05
  21  5467  35.9  66.5 128.5 108.5 162.8   2.3   2.0 1.29E-04 1.40E-02 9.30E+05

*!
*TIM 12:43:00  52 51.65 131 33.10
*TRA     70     S5     10      14   1492   4.833 263.346   0.500   9.666
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM  KM2     M     M     M     M   KG/M2       KG
     10    1  300    0  1.85   3.33 127.6 107.6 112.8  14.7  9.93E-04  3.31E+03
     11    1  300    0  1.85   3.33 128.5 108.5 116.1  12.4  5.65E-02  1.88E+05
     12    1  300    1  1.85   3.33 123.6 103.6 115.7   7.9  1.29E-01  4.29E+05
     13    1  300   14  1.85   3.33 142.5 122.5 131.2  11.4  4.83E-02  1.61E+05
     14    1  292   23  1.85   3.24 115.2  95.2  99.5  15.7  1.21E-01  3.93E+05

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   5  1492   9.0  16.6 127.5 107.5 112.4  11.7   5.6 6.59E-04 7.09E-02 1.17E+06
  26  6959  44.9  83.1 128.3 108.3 134.7   7.6   4.0 2.34E-04 2.53E-02 2.10E+06

*!-------------------------------------------------------------------------------
*TIM 13:13:00  52 51.09 131 41.05            ! Selwyn & Cumshewa - coverage 1
*TRA     71     S6     15      16    600   2.490 297.762   0.283   8.789
*ZER
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
15	1	300	0	1.85	4.27	188.5	168.5	166.7	21.8	4.30E-02	1.84E+05
16	1	300	0	1.85	4.27	149.7	129.7	134.4	15.3	1.32E-02	5.63E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
2	600	4.6	8.5	169.1	149.1	159.1	20.3	1.7	1.88E-04	2.81E-02	2.40E+05
2	600	4.6	8.5	169.1	149.1	159.1	20.3	1.7	1.88E-04	2.81E-02	2.40E+05

```
*!
*TIM 13:30:00  52 52.25 131 44.70
*TRA     72      S7      17       20    1118   2.704 249.659   0.267  10.141
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
17	1	254	0	1.85	2.11	128.4	108.4	153.5	-25.1	1.90E-02	3.99E+04
18	1	300	0	1.85	2.49	175.2	155.2	147.9	27.3	1.98E-02	4.92E+04
19	1	300	0	1.85	2.49	146.2	126.2	138.1	8.2	7.72E-03	1.92E+04
20	1	264	0	1.85	2.19	142.8	122.8	131.5	11.3	8.48E-03	1.86E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	1118	5.0	9.3	149.1	129.1	145.8	5.6	2.0	1.06E-04	1.37E-02	1.27E+05
6	1718	9.6	17.8	158.7	138.7	154.5	15.2	1.8	1.48E-04	2.06E-02	3.67E+05

```
*!
*TIM 13:46:00  52 51.31 131 48.90
*TRA     73      S8      21       24     932   2.852 317.708   0.350   8.150
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
21	1	300	0	1.85	3.15	149.4	129.4	121.9	27.5	4.10E-03	1.29E+04
22	1	300	0	1.85	3.15	138.7	118.7	123.5	15.2	9.84E-03	3.10E+04
23	1	300	0	1.85	3.15	121.9	101.9	71.5	50.4	4.79E-02	1.51E+05
24	1	32	0	1.85	0.34	106.6	86.6	98.4	8.2	7.87E-03	2.64E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	932	5.3	9.8	135.7	115.7	83.3	42.8	3.8	1.74E-04	2.02E-02	1.97E+05
10	2650	14.9	27.6	150.5	130.5	129.6	24.9	2.5	1.57E-04	2.04E-02	5.64E+05

```
*!-------------------------------------------------------------------------------
*TIM 14:07:00  52 53.42 131 52.08              !  Selwyn & Cumshewa - coverage 2
*TRA     74     S8R      25       28    1007   2.852 137.708   0.317   9.008
*ZER
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
25	1	300	0	1.85	2.91	115.2	95.2	98.8	16.4	3.23E-03	9.40E+03
26	1	300	0	1.85	2.91	129.8	109.8	72.4	57.4	1.43E-01	4.17E+05
27	1	300	0	1.85	2.91	145.1	125.1	124.2	20.9	2.76E-03	8.05E+03
28	1	107	0	1.85	1.04	150.2	130.2	118.4	31.8	6.43E-03	6.68E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
4	1007	5.3	9.8	132.1	112.1	74.6	55.5	2.4	4.02E-04	4.51E-02	4.41E+05
4	1007	5.3	9.8	132.1	112.1	74.6	55.5	2.4	4.02E-04	4.51E-02	4.41E+05

```
*!
*TIM 14:26:00  52 51.31 131 48.90
*TRA      75     S7R      29       31     900   2.704  69.659   0.300   9.014
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
29	1	300	0	1.85	3.09	136.1	116.1	129.1	7.0	5.62E-03	1.74E+04
30	1	300	0	1.85	3.09	145.2	125.2	132.2	13.0	6.56E-03	2.03E+04
31	1	300	0	1.85	3.09	173.9	153.9	145.1	28.8	2.68E-02	8.29E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	900	5.0	9.3	151.7	131.7	140.6	23.0	3.4	9.87E-05	1.30E-02	1.21E+05
7	1907	10.3	19.1	141.7	121.7	88.7	48.5	2.6	2.42E-04	2.95E-02	5.62E+05

```
*!
*TIM 14:44:00  52 52.25 131 44.70
*TRA      76     S6R      32       33     545   2.490 117.762   0.217  11.494
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
32	1	300	0	1.85	4.70	136.7	116.7	152.5	-15.8	2.94E-02	1.38E+05
33	1	245	0	1.85	3.84	148.4	128.4	132.9	15.5	1.58E-02	6.07E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
2	545	4.6	8.5	142.0	122.0	146.5	6.2	2.0	1.91E-04	2.33E-02	1.99E+05
9	2452	14.9	27.6	141.8	121.8	103.9	34.2	2.4	2.26E-04	2.76E-02	7.60E+05

```
*!-------------------------------------------------------------------------------
*! TIM 14:57:00
*! BON
*TIM 14:57:00  52 51.09 131 41.05                ! Selwyn & Cumshewa - coverage 1
*TRA      78    S6RR      34       38    1246   0.453  90.000   0.383   1.182
*ZER
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
34	1	300	0	1.85	0.37	162.9	142.9	121.5	41.3	6.27E-02	2.35E+04
35	1	300	0	1.85	0.37	170.0	150.0	142.1	27.9	1.62E-02	6.05E+03
36	1	300	0	1.85	0.37	181.9	161.9	172.2	9.7	6.99E-02	2.62E+04
37	1	300	0	1.85	0.37	187.5	167.5	165.1	22.3	7.88E-02	2.95E+04
38	1	46	0	1.85	0.06	126.5	106.5	127.7	-1.2	3.07E-02	1.76E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
5	1246	0.8	1.6	173.7	153.7	153.1	23.6	0.5	3.64E-04	5.59E-02	8.69E+04
5	1246	0.8	1.6	173.7	153.7	153.1	23.6	0.5	3.64E-04	5.59E-02	8.69E+04

```
*!
*TIM 15:20:00  52 51.09 131 40.30
*TRA     79      S9      39      48   2897   7.797  63.080   0.950   8.207
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
     39    1  300   10  1.85   2.77 111.8  91.8 102.9   8.9 7.51E-03 2.08E+04
     40    1  300   14  1.85   2.77 146.5 126.5 124.3  22.2 7.44E-02 2.06E+05
     41    1  300    4  1.85   2.77 110.1  90.1 110.2  -0.1 2.06E-02 5.69E+04
     42    1  300   18  1.85   2.77 139.1 119.1 126.9  12.2 5.38E-03 1.49E+04
     43    1  300    1  1.85   2.77 186.0 166.0 147.4  38.6 5.51E-03 1.53E+04
     44    1  300   21  1.85   2.77  87.3  67.3  81.6   5.7 4.23E-03 1.17E+04
     45    1  300    8  1.85   2.77 133.0 113.0 123.1   9.9 1.43E-03 3.96E+03
     46    1  300   23  1.85   2.77  94.2  74.2  70.1  24.1 1.27E-03 3.53E+03
     47    1  300   10  1.85   2.77 124.2 104.2 120.8   3.4 6.87E-04 1.90E+03
     48    1  197    6  1.85   1.82 138.2 118.2 114.1  24.2 1.93E-03 3.52E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3   KG/M2        KG
  10  2897  14.4  26.7 126.6 106.6 119.6  17.2   3.3 1.19E-04 1.27E-02 3.39E+05
  15  4143  15.3  28.3 129.2 109.2 126.4  18.5   2.7 1.38E-04 1.50E-02 4.26E+05

*!-------------------------------------------------------------------------------
*IEI 85E009.INT
*TIM 16:17:00  52 54.62 131 28.78            !  Selwyn & Cumshewa - coverage 1
*TRA     81     S10       1       8   2346   8.089 345.471   0.933   8.666
*ZER
*FIR 1
*LZE 2
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
      1    1  300    1  1.85   3.55 193.9 173.9   0.0   0.0 0.00E+00 0.00E+00
      2    1  300    2  1.85   3.55 135.7 115.7   0.0   0.0 0.00E+00 0.00E+00
*LOU 8
      3    1  300   27  1.85   3.55  61.4  41.4  56.7   4.7 1.30E-03 4.61E+03
      4    1  300    2  1.85   3.55  21.7   3.9   0.0   0.0 0.00E+00 0.00E+00
      5    1  300    2  1.85   3.55  13.6   0.0   0.0   0.0 0.00E+00 0.00E+00
      6    1  300    1  1.85   3.55  13.2   0.1   0.0   0.0 0.00E+00 0.00E+00
      7    1  300    1  1.85   3.55  20.9   1.5   0.0   0.0 0.00E+00 0.00E+00
      8    1  246    0  1.85   2.91  20.5   1.2   0.0   0.0 0.00E+00 0.00E+00

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3   KG/M2        KG
   8  2346  15.0  27.7  61.0  43.2  56.7   4.7   4.8 3.85E-06 1.66E-04 4.61E+03
   8  2346  15.0  27.7  61.0  43.2  56.7   4.7   4.8 3.85E-06 1.66E-04 4.61E+03

*!
*TIM 17:13:00  53  2.45 131 32.15
*TRA     82     S11       9      12   1099   3.620 243.773   0.367   9.874
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
      9    1  300    1  1.85   3.39  24.3   4.5   0.0   0.0 0.00E+00 0.00E+00
     10    1  300    0  1.85   3.39  17.7   0.7   0.0   0.0 0.00E+00 0.00E+00
```

11	1	300	0	1.85	3.39	17.4	0.1	0.0	0.0	0.00E+00	0.00E+00
12	1	199	0	1.85	2.25	16.0	0.0	0.0	0.0	0.00E+00	0.00E+00

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
4	1099	6.7	12.4	19.1	1.5	0.0	0.0	0.0	0.00E+00	0.00E+00	0.00E+00
12	3445	21.7	40.2	48.1	30.3	56.7	4.7	4.8	3.79E-06	1.15E-04	4.61E+03

```
*!
*TIM 17:35:00  53  0.85 131 37.55
*TRA     83    S12     13      15    773   2.126 306.004   0.333   6.379
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
13	1	300	0	1.85	2.83	19.9	1.0	20.5	-0.6	2.62E-07	7.41E-01
14	1	300	0	1.85	2.83	27.6	7.8	23.3	4.3	4.48E-05	1.27E+02
15	1	173	0	1.85	1.63	27.6	7.6	27.9	-0.3	1.11E-05	1.81E+01

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	773	3.9	7.3	24.6	5.1	23.9	3.7	2.4	3.90E-06	2.00E-05	1.46E+02
15	4218	25.6	47.5	44.5	26.4	55.7	4.7	4.7	3.80E-06	1.00E-04	4.76E+03

```
*!
*TIM 17:55:00  53  2.10 131 40.41
*TRA     84    S13     16      19   1053   3.315 271.729   0.283  11.699
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
16	1	300	0	1.85	3.24	30.3	10.3	25.7	4.6	5.09E-06	1.65E+01
17	1	300	0	1.85	3.24	21.2	3.2	21.6	-0.4	7.48E-06	2.42E+01
18	1	300	0	1.85	3.24	20.1	5.4	22.9	-2.8	2.07E-06	6.69E+00
19	1	153	0	1.85	1.65	66.3	46.3	66.0	0.3	1.50E-04	2.48E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
4	1053	6.1	11.4	30.0	12.1	59.1	0.4	5.1	2.15E-06	2.59E-05	2.95E+02
19	5271	31.8	58.8	41.7	23.6	55.9	4.5	4.7	3.63E-06	8.59E-05	5.05E+03

```
*!
*TIM 18:12:00  53  2.20 131 45.92
*TRA     85    S14     20      22    900   2.379 292.746   0.200  11.897
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
20	1	300	0	1.85	2.72	105.4	85.4	94.4	11.1	1.21E-02	3.28E+04
21	1	300	0	1.85	2.72	87.3	67.3	66.0	21.3	6.57E-03	1.79E+04
22	1	300	0	1.85	2.72	79.2	59.3	52.4	26.8	2.02E-03	5.49E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	900	4.4	8.2	90.7	70.7	81.2	15.9	1.5	9.74E-05	6.88E-03	5.61E+04
22	6171	36.2	67.0	47.6	29.4	79.1	14.9	1.8	3.11E-05	9.14E-04	6.12E+04

```
*!
*TIM 18:24:00  53  3.12 131 49.57
*TRA     86     S15      23       25     800    3.089 258.231    0.333    9.266
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
     23    1  300    9  1.85   3.97  93.5  73.5  82.3  11.2  2.62E-03  1.04E+04
     24    1  300    0  1.85   3.97  95.1  75.1  86.7   8.4  2.81E-03  1.12E+04
     25    1  200   33  1.85   2.65  54.6  34.6  50.7   3.9  5.84E-04  1.55E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   3   800   5.7  10.6  84.4  64.4  82.3   9.3   2.4 3.39E-05 2.18E-03 2.31E+04
  25  6971  41.9  77.6  52.6  34.1  80.0  13.4   1.9 3.18E-05 1.09E-03 8.43E+04

*!
*IEI 85E010.INT
*TIM 18:44:00  53  2.49 131 54.60
*TRA     88     S16       1        1     300    1.509 213.371    0.217    6.963
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
      1    1  300    1  1.85   5.18  81.8  61.8  48.8  33.1  1.40E-03  7.23E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   1   300   2.8   5.2  81.8  61.8  48.8  33.1   1.4 2.26E-05 1.40E-03 7.23E+03
  26  7271  44.7  82.8  54.5  35.9  77.5  14.9   1.9 3.08E-05 1.11E-03 9.16E+04

*!-------------------------------------------------------------------------------
*TIM 18:57:00  53  1.23 131 55.98              !  Selwyn & Cumshewa - coverage 2
*TRA     89     S17       2        9    2400    2.187  49.856    0.250    8.748
*ZER
*FIR 2
*LZE 2
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
      2    1  300    0  1.85   0.94  69.7  49.7   0.0   0.0  0.00E+00  0.00E+00
*LOU 9
      3    1  300    0  1.85   0.94  92.6  72.6  87.1   5.5  1.75E-03  1.64E+03
      4    1  300    0  1.85   0.94  94.9  74.9  88.4   6.4  4.03E-03  3.78E+03
      5    1  300    0  1.85   0.94  94.4  74.4  85.6   8.8  2.60E-03  2.44E+03
      6    1  300    6  1.85   0.94  79.9  59.9  72.6   7.4  1.23E-02  1.15E+04
      7    1  300    0  1.85   0.94  95.1  75.1  84.0  11.1  1.14E-03  1.07E+03
      8    1  300    0  1.85   0.94  80.8  60.8  59.9  20.8  4.60E-03  4.32E+03
      9    1  300    0  1.85   0.94  86.6  66.6  68.2  18.4  1.33E-02  1.25E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   8  2400   4.1   7.5  86.8  66.8  73.1  12.7   2.7 7.44E-05 4.97E-03 3.73E+04
   8  2400   4.1   7.5  86.8  66.8  73.1  12.7   2.7 7.44E-05 4.97E-03 3.73E+04

*!
*TIM 19:40:00  53  3.12 131 49.57     ! S14R(19)
```

*TRA 91 S19 10 10 300 2.379 112.746 0.167 14.277
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
10	1	300	0	1.85	8.16	97.1	77.1	88.6	8.5	1.16E-02	9.46E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
1	300	4.4	8.2	97.1	77.1	88.6	8.5	2.2	1.50E-04	1.16E-02	9.46E+04
9	2700	8.5	15.7	92.2	72.2	84.2	9.7	2.3	1.17E-04	8.42E-03	1.32E+05

*!
*TIM 19:50:00 53 2.20 131 45.92 ! S13R(20)
*TRA 92 S20 11 13 900 3.315 91.729 0.283 11.699
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
11	1	300	0	1.85	3.79	25.5	9.8	36.6	-11.1	8.39E-06	3.18E+01
12	1	300	0	1.85	3.79	21.1	3.1	21.5	-0.4	1.56E-06	5.91E+00
13	1	300	0	1.85	3.79	26.1	6.4	23.0	3.1	3.14E-06	1.19E+01

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	900	6.1	11.4	24.2	6.4	31.5	-6.4	2.2	6.78E-07	4.36E-06	4.96E+01
12	3600	14.6	27.0	63.6	44.5	84.2	9.7	2.3	1.10E-04	4.88E-03	1.32E+05

*!
*TIM 20:07:00 53 2.10 131 40.41 ! S12R(21)
*TRA 93 S21 14 15 600 2.126 126.004 0.233 9.113
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
14	1	300	0	1.85	3.65	25.0	6.4	22.9	2.1	4.14E-05	1.51E+02
15	1	300	0	1.85	3.65	15.8	0.0	0.0	0.0	0.00E+00	0.00E+00

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
2	600	3.9	7.3	20.4	3.2	22.9	2.1	1.0	6.46E-06	2.07E-05	1.51E+02
14	4200	18.5	34.3	54.4	35.7	84.1	9.7	2.3	1.08E-04	3.85E-03	1.32E+05

*!
*TIM 20:21:00 53 0.85 131 37.55 ! S11R(22)
*TRA 94 S22 16 19 1200 3.620 63.773 0.383 9.445
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
16	1	300	0	1.85	3.10	14.1	0.0	0.0	0.0	0.00E+00	0.00E+00
17	1	300	0	1.85	3.10	16.3	0.0	0.0	0.0	0.00E+00	0.00E+00
18	1	300	0	1.85	3.10	18.0	0.5	0.0	0.0	0.00E+00	0.00E+00
19	1	300	0	1.85	3.10	22.4	2.4	0.0	0.0	0.00E+00	0.00E+00

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	1200	6.7	12.4	17.7	0.7	0.0	0.0	0.0	0.00E+00	0.00E+00	0.00E+00

18 5400 25.2 46.7 44.7 26.4 84.1 9.7 2.3 1.07E-04 2.83E-03 1.32E+05

*!
*TIM 20:44:00 53 2.45 131 32.15 ! S1OR(23)
*TRA 95 S23 20 35 4343 8.089 165.471 0.900 8.987
*FIR 20
*LAS 29

	PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
	20	1	300	0	1.85	1.92	17.8	0.0	0.0	0.0	0.00E+00	0.00E+00
	21	1	300	0	1.85	1.92	17.3	0.2	0.0	0.0	0.00E+00	0.00E+00
	22	1	300	0	1.85	1.92	8.9	0.0	0.0	0.0	0.00E+00	0.00E+00
	23	1	300	0	1.85	1.92	13.3	0.0	0.0	0.0	0.00E+00	0.00E+00
	24	1	300	0	1.85	1.92	29.1	9.2	28.4	0.7	4.30E-07	8.24E-01
	25	1	300	0	1.85	1.92	61.1	41.1	45.0	16.2	1.67E-05	3.20E+01
	26	1	300	1	1.85	1.92	61.9	41.9	54.5	7.4	2.03E-05	3.89E+01
	27	1	126	0	1.85	0.80	67.6	47.6	61.6	6.0	5.15E-05	4.14E+01
	28	1	300	0	1.85	1.92	93.3	73.3	91.1	2.3	8.15E-04	1.56E+03
	29	1	300	0	1.85	1.92	96.6	76.6	87.5	9.1	7.87E-05	1.51E+02
*LZE	30											
	30	1	257	0	1.85	1.64	100.2	80.2	0.0	0.0	0.00E+00	0.00E+00
*LOU	35											
	31	1	174	1	1.85	1.11	96.9	76.9	83.5	13.5	1.78E-04	1.98E+02
	32	1	300	0	1.85	1.92	102.3	82.3	88.8	13.5	1.77E-04	3.39E+02
	33	1	300	0	1.85	1.92	117.9	97.9	96.0	21.9	3.80E-04	7.28E+02
	34	1	300	1	1.85	1.92	128.3	108.3	109.3	19.0	4.73E-04	9.07E+02
	35	1	186	0	1.85	1.19	157.5	137.5	121.5	36.0	8.11E-04	9.64E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
16	4343	15.0	27.7	70.2	51.8	99.6	16.3	11.5	3.45E-06	1.79E-04	4.96E+03
34	9743	40.2	74.5	54.2	35.9	84.7	9.9	2.7	5.13E-05	1.84E-03	1.37E+05

*!----------
*! TIM 21:38:00
*! BON
*IEI 85E011.INT
*IEI 85E012.INT
*IEI 85E013.INT
*TIM 10:06:00 53 21.83 130 59.35 ! SW Bonilla - coverage 1
*TRA 123 H30 1 5 1421 5.162 48.363 0.567 9.110
*WID 2.1
*ZER
*LOU

	PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
	1	1	300	1	3.89	7.85	93.6	73.6	84.3	9.3	5.61E-05	4.40E+02
	2	1	300	0	3.89	7.85	99.4	79.4	94.1	5.3	1.15E-04	9.00E+02
	3	1	300	0	3.89	7.85	104.3	84.3	96.3	8.0	4.71E-05	3.70E+02
	4	1	300	0	3.89	7.85	114.0	94.0	105.0	9.0	1.94E-03	1.52E+04
	5	1	221	0	3.89	5.78	112.0	92.0	97.8	14.2	7.31E-03	4.22E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
5	1421	9.6	37.2	104.2	84.2	99.5	12.6	8.2	1.89E-05	1.59E-03	5.92E+04
5	1421	9.6	37.2	104.2	84.2	99.5	12.6	8.2	1.89E-05	1.59E-03	5.92E+04

*!
*TIM 10:40:00 53 25.26 130 52.88
*TRA 124 H31 6 10 1317 4.181 301.583 0.433 9.650
*WID 2.45
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
6	1	300	0	4.54	8.00	110.4	90.4	103.4	6.9	2.10E-03	1.68E+04
7	1	300	0	4.54	8.00	98.5	78.5	93.9	4.6	6.98E-03	5.59E+04
8	1	300	0	4.54	8.00	92.2	72.2	89.7	2.5	7.66E-04	6.13E+03
9	1	300	6	4.54	8.00	85.4	65.4	79.2	6.2	2.03E-03	1.62E+04
10	1	117	0	4.54	3.12	74.5	54.5	69.9	4.6	2.68E-06	8.37E+00

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
5	1317	7.7	35.1	94.7	74.7	92.8	5.2	3.1	3.62E-05	2.70E-03	9.50E+04
10	2738	17.3	72.3	99.6	79.6	95.4	8.0	5.0	2.68E-05	2.13E-03	1.54E+05

*!
*TIM 11:23:00 53 29.15 130 55.60
*TRA 126 H33 15 20 1674 4.124 122.077 0.583 7.069
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
15	1	300	0	4.54	6.21	83.0	63.0	47.0	36.1	9.82E-05	6.10E+02
16	1	300	0	4.54	6.21	87.3	67.3	51.7	35.6	8.24E-05	5.12E+02
17	1	300	0	4.54	6.21	94.0	74.0	81.6	12.4	6.36E-04	3.95E+03
18	1	300	22	4.54	6.21	105.1	85.1	98.0	7.1	1.31E-01	8.13E+05
19	1	277	0	4.54	5.73	112.0	92.0	58.0	54.0	5.40E-04	3.10E+03
20	1	197	5	4.54	4.08	113.7	93.7	90.0	23.6	1.55E-03	6.32E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
6	1674	7.6	34.7	98.1	78.1	97.7	7.5	4.8	3.06E-04	2.39E-02	8.28E+05
16	4412	24.9	107.0	99.1	79.1	97.3	7.6	4.8	1.16E-04	9.18E-03	9.82E+05

*!
*TIM 12:15:00 53 28.64 130 46.62
*TRA 128 H35 24 27 1200 4.077 302.821 0.383 10.637
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
24	1	300	0	4.54	8.57	134.8	114.8	128.6	6.3	3.81E-04	3.26E+03
25	1	300	60	4.54	8.57	97.8	77.8	92.8	5.0	1.58E-01	1.35E+06
26	1	300	17	4.54	8.57	86.3	66.3	66.2	20.1	3.46E-01	2.96E+06
27	1	300	0	4.54	8.57	82.9	62.9	52.1	30.7	3.40E-04	2.92E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
4	1200	7.6	34.3	100.4	80.4	74.5	15.4	4.1	1.57E-03	1.26E-01	4.32E+06
20	5612	32.5	141.2	99.4	79.4	78.8	13.9	4.3	4.73E-04	3.75E-02	5.30E+06

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*!
*TIM 12:55:00  53 32.53 130 49.21
*TRA    130     H37      31       34    1111    3.023 123.308   0.350   8.637
*LOU
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PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
31	1	300	10	4.54	6.86	83.1	63.1	77.9	5.2	9.26E-02	6.35E+05
32	1	300	23	4.54	6.86	95.1	75.1	77.3	17.8	2.35E-02	1.61E+05
33	1	300	0	4.54	6.86	142.0	122.0	116.8	25.2	2.66E-01	1.82E+06
34	1	211	0	4.54	4.82	143.9	123.9	120.4	23.5	6.16E-01	2.97E+06

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
4	1111	5.6	25.4	113.8	93.8	113.2	21.8	4.1	2.35E-03	2.20E-01	5.59E+06
24	6723	38.1	166.6	101.6	81.6	96.4	18.0	4.2	8.01E-04	6.54E-02	1.09E+07

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*!-------------------------------------------------------------------------------
*IEI 85E014.INT
*TIM 15:21:00  53 23.30 130 51.50            !  SW Bonilla - coverage 1
*TRA    133     H28       4       11    2134    6.426 227.997   0.733   8.763
*ZER
*WID 2.1
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
4	1	300	0	3.89	6.51	118.7	98.7	56.4	62.3	1.20E-04	7.82E+02
5	1	300	0	3.89	6.51	128.3	108.3	122.2	6.2	3.66E-03	2.38E+04
6	1	300	0	3.89	6.51	116.9	96.9	60.7	56.2	4.95E-05	3.22E+02
7	1	300	0	3.89	6.51	108.8	88.8	55.0	53.8	1.94E-04	1.26E+03
8	1	300	0	3.89	6.51	88.9	68.9	60.3	28.5	2.75E-04	1.79E+03
9	1	300	0	3.89	6.51	81.6	61.6	55.4	26.3	1.11E-04	7.24E+02
10	1	300	0	3.89	6.51	77.5	57.5	60.1	17.4	1.46E-04	9.47E+02
11	1	34	0	3.89	0.74	73.0	53.0	0.0	0.0	0.00E+00	0.00E+00

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2134	11.9	46.3	102.5	82.5	109.6	12.4	3.4	7.77E-06	6.41E-04	2.97E+04
8	2134	11.9	46.3	102.5	82.5	109.6	12.4	3.4	7.77E-06	6.41E-04	2.97E+04

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*!
*TIM 16:29:00  53 16.90 130 58.10
*TRA    135     H26      15       22    2239    6.429  48.020   0.600  10.715
*LOU
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PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
15	1	300	0	3.89	6.20	76.1	56.1	51.2	25.0	5.21E-04	3.23E+03
16	1	300	0	3.89	6.20	81.6	61.6	45.5	36.2	1.99E-04	1.23E+03

17	1	300	0	3.89	6.20	86.6	66.6	46.7	39.8	6.49E-04	4.02E+03
18	1	300	0	3.89	6.20	100.0	80.0	50.3	49.8	5.03E-04	3.12E+03
19	1	300	0	3.89	6.20	114.8	94.8	54.3	60.4	1.90E-04	1.18E+03
20	1	300	0	3.89	6.20	125.7	105.7	114.9	10.7	1.33E-04	8.26E+02
21	1	300	0	3.89	6.20	129.4	109.4	104.1	25.2	7.99E-04	4.96E+03
22	1	139	0	3.89	2.87	128.2	108.2	77.2	51.0	1.60E-03	4.59E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2239	11.9	46.3	103.7	83.7	68.9	38.0	6.9	5.98E-06	5.00E-04	2.32E+04
16	4373	23.8	92.6	103.1	83.1	91.7	23.6	4.9	6.87E-06	5.70E-04	5.28E+04

*!
*TIM 17:23:00 53 18.60 130 50.40
*TRA 137 H24 27 33 2058 6.568 226.753 0.700 9.383
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
27	1	300	0	3.89	6.90	128.5	108.5	112.7	15.8	8.62E-04	5.94E+03
28	1	300	0	3.89	6.90	120.8	100.8	110.8	10.0	4.25E-03	2.93E+04
29	1	300	0	3.89	6.90	99.4	79.4	65.2	34.2	4.67E-04	3.22E+03
30	1	300	0	3.89	6.90	89.2	69.2	42.0	47.3	4.70E-04	3.24E+03
31	1	300	0	3.89	6.90	84.0	64.0	59.5	24.5	3.02E-05	2.08E+02
32	1	300	0	3.89	6.90	82.2	62.2	74.4	7.8	9.41E-03	6.49E+04
33	1	258	0	3.89	5.93	78.4	58.4	72.4	6.0	1.46E-04	8.64E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	2058	12.2	47.3	97.9	77.9	85.1	10.8	7.1	2.92E-05	2.28E-03	1.08E+05
23	6431	36.0	139.9	101.3	81.3	87.3	15.0	6.4	1.41E-05	1.15E-03	1.61E+05

*!
*TIM 18:25:00 53 11.20 130 58.40
*TRA 139 H22 38 44 2082 5.837 46.743 0.767 7.614
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
38	1	300	0	3.89	6.06	67.8	47.8	64.1	3.6	2.80E-05	1.69E+02
39	1	300	0	3.89	6.06	77.9	57.9	70.3	7.6	3.62E-04	2.19E+03
40	1	300	0	3.89	6.06	82.5	62.5	72.4	10.0	1.32E-04	8.01E+02
41	1	300	0	3.89	6.06	85.6	65.6	76.7	8.9	2.97E-04	1.80E+03
42	1	300	0	3.89	6.06	93.4	73.4	75.2	18.2	7.98E-04	4.83E+03
43	1	300	0	3.89	6.06	102.4	82.4	88.8	13.6	5.35E-04	3.24E+03
44	1	282	0	3.89	5.69	107.1	87.1	101.4	5.8	9.10E-04	5.18E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	2082	10.8	42.0	87.9	67.9	84.4	11.2	7.2	6.38E-06	4.33E-04	1.82E+04
30	8513	46.8	181.9	98.2	78.2	87.0	14.6	6.5	1.26E-05	9.82E-04	1.79E+05

*!----------
*! TIM 20:20:00 53 14.50 130 54.30
*! BON #10
*DAT 02-DEC-85

```
*IEI 85E015.INT
*TIM 09:50:00  53 48.30 130 41.40            !  Browning Entr. - short 22-29
*TRA    142     22      1       5   1367   3.582 227.927   0.433   8.265
*WID 1.0
*ZER
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2        KG
      1    1  300    1  1.85   2.70  82.8  62.8  54.1  28.7  5.69E-03  1.54E+04
      2    1  300    0  1.85   2.70  99.4  79.4  87.4  12.0  1.74E-04  4.69E+02
      3    1  300    0  1.85   2.70 109.6  89.6 103.8   5.7  2.47E-04  6.66E+02
      4    1  300    0  1.85   2.70 117.2  97.2  71.7  45.5  6.88E-04  1.86E+03
      5    1  167    0  1.85   1.50 108.7  88.7  97.3  11.4  1.62E-03  2.43E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM  KG/M3   KG/M2        KG
   5  1367   6.6  12.3 103.0  83.0  63.1  27.1   1.9 2.04E-05 1.69E-03 2.08E+04
   5  1367   6.6  12.3 103.0  83.0  63.1  27.1   1.9 2.04E-05 1.69E-03 2.08E+04

*!
*TIM 10:26:00  53 46.50 130 47.20
*TRA    144     23      7      11   1321   3.515  49.131   0.383   9.170
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2        KG
      7    1  300    0  1.85   2.74 106.9  86.9 109.0  -2.1  1.17E-03  3.20E+03
      8    1  300    0  1.85   2.74 101.3  81.3  99.1   2.2  2.09E-04  5.73E+02
      9    1  300    0  1.85   2.74  96.0  76.0  72.3  23.7  9.52E-05  2.61E+02
     10    1  300    0  1.85   2.74  89.3  69.3  82.0   7.4  1.22E-03  3.33E+03
     11    1  121    0  1.85   1.10  80.6  60.6  67.1  13.5  6.06E-05  6.70E+01

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM  KG/M3   KG/M2        KG
   5  1321   6.5  12.1  96.8  76.8  94.5   3.5   3.0 8.03E-06 6.16E-04 7.43E+03
  10  2688  13.1  24.3  99.9  79.9  71.3  20.9   2.2 1.45E-05 1.16E-03 2.82E+04

*!
*TIM 10:55:00  53 49.40 130 44.10
*TRA    146     24     13      17   1330   3.559 229.746   0.450   7.910
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2        KG
     13    1  300    0  1.85   2.75  69.9  49.9  60.2   9.8  1.97E-04  5.42E+02
     14    1  300    0  1.85   2.75  88.1  68.1  65.4  22.7  1.75E-04  4.83E+02
     15    1  300    0  1.85   2.75  92.1  72.1  84.3   7.9  9.10E-03  2.50E+04
     16    1  300    0  1.85   2.75 114.2  94.2 120.6  -6.4  7.12E-03  1.96E+04
     17    1  130    0  1.85   1.19 118.7  98.7 119.3  -0.6  1.15E-02  1.37E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM  KG/M3   KG/M2        KG
   5  1330   6.6  12.2  93.8  73.8 104.0   1.3   4.8 6.60E-05 4.87E-03 5.94E+04
  15  4018  19.7  36.5  97.9  77.9  93.5   7.6   3.9 3.08E-05 2.40E-03 8.76E+04
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*!
*TIM 11:27:00 53 47.60 130 50.00
*TRA 148 25 19 22 1200 3.382 47.154 0.417 8.117
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
19	1	300	0	1.85	2.90	110.6	90.6	90.2	20.4	1.27E-03	3.69E+03
20	1	300	0	1.85	2.90	106.9	86.9	78.1	28.8	2.77E-03	8.03E+03
21	1	300	5	1.85	2.90	99.0	79.0	89.3	9.7	4.81E-02	1.39E+05
22	1	300	6	1.85	2.90	88.4	68.4	82.7	5.7	7.22E-03	2.09E+04

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
4	1200	6.3	11.6	101.2	81.2	88.0	10.3	4.0	1.83E-04	1.48E-02	1.72E+05
19	5218	26.0	48.1	98.7	78.7	89.8	9.4	4.0	6.86E-05	5.39E-03	2.60E+05

*!
*TIM 12:00:00 53 50.40 130 47.20
*TRA 150 26 25 28 1200 3.184 226.300 0.400 7.961
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
25	1	300	0	1.85	2.73	74.3	54.3	73.8	0.6	2.87E-03	7.85E+03
26	1	300	0	1.85	2.73	83.3	63.3	77.3	6.0	1.99E-02	5.42E+04
27	1	300	5	1.85	2.73	84.4	64.4	78.9	5.5	1.64E-02	4.49E+04
28	1	300	0	1.85	2.73	85.5	65.5	65.4	20.1	7.38E-03	2.02E+04

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
4	1200	5.9	10.9	81.9	61.9	75.8	7.7	3.1	1.88E-04	1.16E-02	1.27E+05
23	6418	31.9	59.1	95.6	75.6	85.2	8.9	3.7	8.67E-05	6.55E-03	3.87E+05

*!
*TIM 12:30:00 53 48.80 130 52.50
*TRA 152 27 31 34 1172 3.403 49.728 0.400 8.508
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
31	1	300	0	1.85	2.99	83.9	63.9	39.1	44.9	3.49E-04	1.04E+03
32	1	300	0	1.85	2.99	76.2	56.2	62.1	14.1	6.67E-03	1.99E+04
33	1	300	10	1.85	2.99	83.1	63.1	77.6	5.5	4.77E-02	1.42E+05
34	1	272	21	1.85	2.71	81.2	61.2	76.9	4.4	4.42E-02	1.20E+05

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
4	1172	6.3	11.7	81.1	61.1	76.1	5.8	4.6	3.97E-04	2.43E-02	2.83E+05
27	7590	38.2	70.7	93.2	73.2	81.3	7.6	4.0	1.29E-04	9.47E-03	6.70E+05

*!
*TIM 13:00:00 53 51.60 130 49.60
*TRA 154 28 36 40 1494 4.577 230.680 0.500 9.153
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
36	1	300	16	1.85	3.15	83.0	63.0	77.3	5.7	1.21E-02	3.81E+04
37	1	300	4	1.85	3.15	82.9	62.9	81.6	1.3	1.89E-02	5.94E+04
38	1	300	5	1.85	3.15	76.3	56.3	60.0	16.3	2.53E-04	7.97E+02
39	1	300	0	1.85	3.15	82.4	62.4	70.6	11.8	5.62E-04	1.77E+03
40	1	294	4	1.85	3.09	81.8	61.8	71.1	10.7	3.42E-03	1.06E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
5	1494	8.5	15.7	81.3	61.3	78.8	4.0	2.5	1.15E-04	7.05E-03	1.11E+05
32	9084	46.7	86.4	91.0	71.0	81.0	7.0	3.8	1.27E-04	9.03E-03	7.81E+05

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*!
*TIM 13:36:00  53 49.60 130 56.10
*TRA    156      29      42      48   1976   5.812  50.462   0.650   8.942
*LOU
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PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
42	1	300	0	1.85	3.03	73.8	53.8	67.0	6.8	1.05E-03	3.17E+03
43	1	300	0	1.85	3.03	80.5	60.5	37.1	43.4	8.65E-05	2.62E+02
44	1	300	0	1.85	3.03	77.2	57.2	52.4	24.7	1.35E-04	4.09E+02
45	1	300	0	1.85	3.03	79.5	59.5	62.7	16.8	1.63E-04	4.93E+02
46	1	300	0	1.85	3.03	75.5	55.5	69.8	5.7	2.19E-03	6.62E+03
47	1	300	0	1.85	3.03	68.3	48.3	63.6	4.8	9.28E-02	2.81E+05
48	1	176	0	1.85	1.78	43.4	23.4	43.1	0.2	6.71E-04	1.19E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
7	1976	10.8	19.9	72.9	52.9	63.6	4.9	8.8	2.78E-04	1.47E-02	2.93E+05
39	11060	57.4	106.4	87.6	67.6	76.2	6.5	5.2	1.49E-04	1.01E-02	1.07E+06

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*!-------------------------------------------------------------------------------
*IEI 85E016.INT
*TIM 15:00:00  53 48.70 130 55.60              Browning Entr. long - coverage 1
*TRA    158      28       1       7   1856   4.577  50.680   0.633   7.226
*ZER
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
1	1	300	1	1.85	2.54	75.3	55.3	67.9	7.4	1.36E-03	3.45E+03
2	1	300	0	1.85	2.54	82.7	62.7	67.6	15.1	3.08E-04	7.82E+02
3	1	300	0	1.85	2.54	81.2	61.2	74.5	6.7	4.77E-03	1.21E+04
4	1	300	0	1.85	2.54	76.9	56.9	80.4	-3.5	2.66E-04	6.74E+02
5	1	300	0	1.85	2.54	86.0	66.0	78.4	7.6	1.82E-01	4.61E+05
6	1	142	0	1.85	1.20	84.5	64.5	75.7	8.8	4.94E-03	5.93E+03
7	1	214	1	1.85	1.81	69.3	49.3	54.9	14.4	4.91E-06	8.88E+00

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
7	1856	8.5	15.7	79.4	59.4	78.2	7.6	6.1	5.19E-04	3.08E-02	4.84E+05
7	1856	8.5	15.7	79.4	59.4	78.2	7.6	6.1	5.19E-04	3.08E-02	4.84E+05

*!
*TIM 15:46:00 53 51.50 130 46.90
*TRA 160 27 10 16 2055 6.015 230.821 0.700 8.593
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
10	1	300	0	1.85	3.01	48.4	28.4	27.7	20.7	2.69E-05	8.10E+01
11	1	300	0	1.85	3.01	78.3	58.3	69.7	8.6	5.07E-01	1.53E+06
12	1	300	0	1.85	3.01	86.4	66.4	69.9	16.5	2.60E-01	7.84E+05
13	1	300	0	1.85	3.01	77.9	57.9	70.9	7.0	9.92E-03	2.99E+04
14	1	300	0	1.85	3.01	87.1	67.1	76.2	10.9	2.36E-04	7.11E+02
15	1	300	0	1.85	3.01	88.7	68.7	66.4	22.3	3.38E-03	1.02E+04
16	1	255	0	1.85	2.56	83.9	63.9	80.5	3.4	1.23E-04	3.15E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
7	2055	11.1	20.6	78.6	58.6	69.8	11.3	3.1	1.95E-03	1.14E-01	2.35E+06
14	3911	19.6	36.3	78.9	58.9	71.2	10.6	3.6	1.32E-03	7.81E-02	2.84E+06

*!
*TIM 16:37:00 53 46.60 130 54.00
*TRA 162 26 19 26 2262 6.630 48.421 0.767 8.648
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
19	1	300	0	1.85	3.02	80.1	60.1	65.1	15.0	1.55E-04	4.67E+02
20	1	300	0	1.85	3.02	88.1	68.1	78.5	9.6	7.76E-04	2.34E+03
21	1	300	7	1.85	3.02	90.5	70.5	85.9	4.6	2.53E-02	7.64E+04
22	1	300	0	1.85	3.02	87.3	67.3	80.3	7.1	1.88E-04	5.68E+02
23	1	300	0	1.85	3.02	86.4	66.4	83.0	3.4	7.56E-03	2.28E+04
24	1	300	0	1.85	3.02	85.6	65.6	76.8	8.8	6.72E-02	2.03E+05
25	1	300	4	1.85	3.02	70.0	50.0	67.9	2.1	9.07E-02	2.74E+05
26	1	162	0	1.85	1.63	52.4	32.4	52.0	0.4	2.73E-05	4.45E+01

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
8	2262	12.3	22.7	81.7	61.7	74.1	4.8	9.0	4.12E-04	2.55E-02	5.79E+05
22	6173	31.9	59.1	80.0	60.0	71.7	9.7	4.5	9.63E-04	5.78E-02	3.42E+06

*!
*TIM 17:30:00 53 50.10 130 45.00
*TRA 164 25 29 36 2270 6.875 229.115 0.750 9.167
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
29	1	300	0	1.85	3.12	72.3	52.3	65.5	6.7	8.46E-05	2.64E+02
30	1	300	0	1.85	3.12	93.5	73.5	75.2	18.3	4.19E-03	1.31E+04
31	1	300	0	1.85	3.12	103.2	83.2	59.7	43.5	3.80E-02	1.18E+05
32	1	300	0	1.85	3.12	116.0	96.0	72.3	43.8	1.12E-02	3.50E+04
33	1	300	0	1.85	3.12	106.0	86.0	72.6	33.3	3.95E-03	1.23E+04
34	1	300	0	1.85	3.12	95.0	75.0	74.3	20.7	1.73E-03	5.40E+03
35	1	300	0	1.85	3.12	85.4	65.4	72.4	13.0	1.37E-03	4.27E+03
36	1	170	0	1.85	1.77	69.8	49.8	63.9	5.9	6.05E-04	1.07E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2270	12.7	23.6	93.9	73.9	64.6	39.6	5.0	1.09E-04	8.05E-03	1.90E+05
30	8443	44.6	82.7	84.0	64.0	71.3	11.2	4.5	6.82E-04	4.36E-02	3.61E+06

*!----------

*TIM 18:21:00 53 45.00 130 52.40 ! Browning Entr. long - coverage 2

*TRA 166 24 39 46 2192 6.898 48.172 0.733 9.406

*ZER

*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
39	1	300	0	1.85	3.24	67.6	47.6	62.3	5.3	2.54E-04	8.24E+02
40	1	300	0	1.85	3.24	92.2	72.2	79.9	12.3	1.77E-03	5.74E+03
41	1	300	0	1.85	3.24	103.3	83.3	82.9	20.4	1.83E-03	5.93E+03
42	1	300	0	1.85	3.24	116.3	96.3	90.4	25.9	3.15E-03	1.02E+04
43	1	300	0	1.85	3.24	109.4	89.4	60.3	49.1	8.01E-03	2.59E+04
44	1	300	0	1.85	3.24	94.1	74.1	66.2	28.0	2.37E-03	7.68E+03
45	1	300	0	1.85	3.24	83.8	63.8	77.1	6.7	6.51E-04	2.11E+03
46	1	92	0	1.85	0.99	68.9	48.9	64.6	4.3	3.20E-05	3.18E+01

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2192	12.8	23.7	94.1	74.1	71.2	33.6	7.0	3.33E-05	2.47E-03	5.85E+04
8	2192	12.8	23.7	94.1	74.1	71.2	33.6	7.0	3.33E-05	2.47E-03	5.85E+04

*!

*TIM 19:12:00 53 48.90 130 42.40

*TRA 168 23 49 57 2532 7.541 229.477 0.817 9.234

*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
49	1	300	0	1.85	3.06	79.9	59.9	71.1	8.8	1.78E-04	5.46E+02
50	1	300	0	1.85	3.06	93.3	73.3	63.6	29.7	1.51E-03	4.62E+03
51	1	300	0	1.85	3.06	99.3	79.3	55.2	44.1	5.42E-03	1.66E+04
52	1	300	0	1.85	3.06	110.8	90.8	89.1	21.7	6.46E-03	1.98E+04
53	1	300	0	1.85	3.06	109.1	89.1	89.7	19.3	6.37E-03	1.95E+04
54	1	300	0	1.85	3.06	105.4	85.4	83.5	21.9	8.17E-03	2.50E+04
55	1	300	0	1.85	3.06	94.1	74.1	84.5	9.7	2.28E-03	6.98E+03
56	1	300	0	1.85	3.06	64.9	44.9	64.5	0.4	1.80E-04	5.51E+02
57	1	132	0	1.85	1.35	50.2	30.2	45.9	4.3	5.15E-05	6.95E+01

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2532	14.0	25.9	92.3	72.3	79.9	24.5	6.9	5.01E-05	3.62E-03	9.37E+04
17	4724	26.7	49.5	93.2	73.2	76.5	28.0	7.0	4.20E-05	3.07E-03	1.52E+05

*!

*TIM 20:50:00 53 48.60 130 55.50

*TRA 170 28 67 73 1904 5.545 48.145 0.650 8.531

*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
67	1	300	0	1.85	3.00	74.7	54.7	67.2	7.5	5.69E-04	1.70E+03

68	1	300	0	1.85	3.00	79.3	59.3	68.7	10.5	5.36E-04	1.61E+03
69	1	300	0	1.85	3.00	76.2	56.2	69.8	6.4	2.81E-04	8.42E+02
70	1	300	0	1.85	3.00	73.3	53.3	60.7	12.6	3.74E-04	1.12E+03
71	1	300	0	1.85	3.00	81.7	61.7	72.6	9.1	3.73E-04	1.12E+03
72	1	300	0	1.85	3.00	76.5	56.5	53.9	22.6	2.90E-03	8.70E+03
73	1	104	0	1.85	1.04	59.0	39.0	46.1	12.9	5.98E-03	6.21E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	1904	10.3	19.0	76.0	56.0	55.8	15.8	7.6	2.00E-05	1.12E-03	2.13E+04
24	6628	37.0	68.5	88.4	68.4	74.0	26.5	7.0	3.70E-05	2.53E-03	1.73E+05

*!
*TIM 21:36:00 53 51.50 130 46.80
*TRA 172 27 76 82 2057 6.124 230.446 0.650 9.422
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
76	1	300	0	1.85	3.06	45.7	25.7	30.5	15.2	1.66E-02	5.09E+04
77	1	300	0	1.85	3.06	75.7	55.7	37.8	37.9	5.25E-01	1.61E+06
78	1	300	0	1.85	3.06	81.9	61.9	47.6	34.4	6.10E-02	1.87E+05
79	1	300	0	1.85	3.06	73.7	53.7	66.2	7.5	6.81E-04	2.09E+03
80	1	300	0	1.85	3.06	82.8	62.8	69.7	13.2	3.23E-04	9.91E+02
81	1	300	0	1.85	3.06	84.3	64.3	73.9	10.4	4.00E-04	1.22E+03
82	1	257	0	1.85	2.62	79.8	59.8	70.6	9.2	4.16E-04	1.09E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	2057	11.3	21.0	74.8	54.8	38.7	36.8	2.6	1.61E-03	8.81E-02	1.85E+06
31	8685	48.4	89.5	85.2	65.2	41.7	36.0	3.0	3.47E-04	2.26E-02	2.02E+06

*!
*TIM 22:55:00 53 46.60 130 54.10
*TRA 174 26 85 92 2254 6.674 48.757 0.267 25.029
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
85	1	300	0	1.85	3.05	76.4	56.4	66.6	9.9	1.64E-04	5.01E+02
86	1	300	0	1.85	3.05	84.1	64.1	76.0	8.1	3.05E-04	9.29E+02
87	1	300	0	1.85	3.05	86.8	66.8	74.2	12.6	5.38E-04	1.64E+03
88	1	300	0	1.85	3.05	83.4	63.5	75.7	7.7	3.01E-04	9.18E+02
89	1	300	0	1.85	3.05	82.7	62.7	70.5	12.1	1.12E-04	3.42E+02
90	1	300	0	1.85	3.05	82.0	62.0	67.0	15.0	3.65E-04	1.11E+03
91	1	300	0	1.85	3.05	67.8	47.8	45.5	22.2	4.73E-01	1.44E+06
92	1	154	0	1.85	1.56	56.1	36.1	27.8	28.4	9.56E-02	1.49E+05

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2254	12.4	22.9	78.8	58.8	44.0	22.8	10.8	1.19E-03	6.97E-02	1.60E+06
39	10939	60.7	112.4	83.9	63.9	42.7	30.1	6.4	5.04E-04	3.22E-02	3.62E+06

*!
*TIM 23:18:00 53 50.00 130 45.10
*TRA 176 25 95 102 2342 6.765 229.428 0.700 9.664

*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
95	1	300	0	1.85	2.97	68.3	48.3	41.4	26.9	5.59E-02	1.66E+05
96	1	300	0	1.85	2.97	89.3	69.3	78.6	10.8	4.84E-03	1.44E+04
97	1	300	0	1.85	2.97	98.9	78.9	80.9	18.0	4.91E-03	1.46E+04
98	1	300	0	1.85	2.97	111.6	91.6	97.4	14.2	2.10E-03	6.25E+03
99	1	300	0	1.85	2.97	104.4	84.4	91.2	13.2	2.57E-03	7.63E+03
100	1	300	0	1.85	2.97	93.1	73.1	72.8	20.2	2.89E-03	8.58E+03
101	1	300	0	1.85	2.97	84.2	64.2	77.4	6.8	1.54E-04	4.59E+02
102	1	242	0	1.85	2.40	69.2	49.2	60.4	8.8	9.69E-05	2.32E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
8	2342	12.5	23.2	90.4	70.4	51.2	24.0	1.8	1.34E-04	9.41E-03	2.18E+05
47	13281	73.2	135.6	85.0	65.0	43.2	29.8	6.2	4.35E-04	2.83E-02	3.84E+06

*!----------

*DAT 03-DEC-85

*TIM 00:15:00 53 45.00 130 52.40 ! Browning Entr. long - coverage 3

*TRA 178 24 105 112 2308 6.898 48.172 0.750 9.197

*ZER

*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
105	1	300	0	1.85	3.08	66.3	46.3	56.7	9.6	9.59E-04	2.95E+03
106	1	300	0	1.85	3.08	89.4	69.4	81.3	8.1	2.76E-04	8.50E+02
107	1	300	0	1.85	3.08	99.9	79.9	92.3	7.6	6.85E-04	2.11E+03
108	1	300	0	1.85	3.08	111.2	91.2	91.6	19.6	1.82E-02	5.61E+04
109	1	300	0	1.85	3.08	114.1	94.1	100.3	13.7	1.07E-02	3.28E+04
110	1	300	0	1.85	3.08	92.1	72.1	79.2	12.8	3.91E-03	1.20E+04
111	1	300	0	1.85	3.08	86.5	66.5	62.8	23.8	1.58E-03	4.87E+03
112	1	208	0	1.85	2.13	69.3	49.3	53.2	16.2	2.38E-03	5.07E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
8	2308	12.8	23.7	92.0	72.0	89.0	16.7	6.9	6.85E-05	4.93E-03	1.17E+05
8	2308	12.8	23.7	92.0	72.0	89.0	16.7	6.9	6.85E-05	4.93E-03	1.17E+05

*!

*TIM 01:10:00 53 48.90 130 42.40

*TRA 180 23 115 123 2657 7.541 229.477 0.850 8.872

*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
115	1	300	0	1.85	2.92	77.1	57.1	52.8	24.4	4.46E-03	1.30E+04
116	1	300	0	1.85	2.92	89.9	69.9	68.0	21.9	1.51E-03	4.40E+03
117	1	300	0	1.85	2.92	97.8	77.8	82.0	15.8	2.21E-03	6.45E+03
118	1	300	0	1.85	2.92	104.6	84.6	96.4	8.1	3.85E-03	1.13E+04
119	1	300	0	1.85	2.92	107.2	87.2	106.1	1.1	3.52E-03	1.03E+04
120	1	300	0	1.85	2.92	109.6	89.6	97.2	12.4	1.07E-03	3.13E+03
121	1	300	0	1.85	2.92	100.7	80.7	95.0	5.7	2.67E-04	7.79E+02
122	1	300	0	1.85	2.92	80.7	60.7	77.3	3.4	1.16E-04	3.39E+02
123	1	257	0	1.85	2.50	54.5	34.5	50.6	3.9	2.33E-06	5.82E+00

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2657	14.0	25.9	91.9	71.9	82.5	13.4	4.4	2.67E-05	1.92E-03	4.97E+04
17	4965	26.7	49.5	92.0	72.0	87.0	15.7	6.2	4.67E-05	3.36E-03	1.66E+05

*!
*TIM 02:36:00 53 48.60 130 55.50
*TRA 182 28 130 136 1857 5.545 48.145 0.633 8.755
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
130	1	300	0	1.85	3.07	78.0	58.0	73.4	4.7	1.50E-04	4.61E+02
131	1	300	0	1.85	3.07	82.3	62.3	72.6	9.7	1.60E-04	4.91E+02
132	1	300	0	1.85	3.07	77.0	57.0	69.2	7.8	1.13E-04	3.48E+02
133	1	300	0	1.85	3.07	79.5	59.5	71.0	8.5	1.05E-04	3.24E+02
134	1	300	0	1.85	3.07	85.1	65.1	80.1	5.0	8.94E-05	2.75E+02
135	1	300	0	1.85	3.07	71.3	51.3	61.3	10.0	1.54E-02	4.73E+04
136	1	57	0	1.85	0.58	50.1	30.1	44.7	5.4	1.02E-03	5.94E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	1857	10.3	19.0	78.0	58.0	61.5	9.9	8.9	4.51E-05	2.62E-03	4.98E+04
24	6822	37.0	68.5	88.1	68.1	81.2	14.4	6.8	4.63E-05	3.15E-03	2.16E+05

*!
*TIM 03:22:00 53 51.50 130 46.80
*TRA 184 27 139 145 2094 6.124 230.446 0.683 8.962
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
139	1	300	5	1.85	3.01	49.7	29.7	40.8	8.9	1.10E-02	3.32E+04
140	1	300	0	1.85	3.01	79.1	59.1	65.3	13.8	9.19E-04	2.77E+03
141	1	300	0	1.85	3.01	85.5	65.5	67.0	18.5	5.56E-04	1.67E+03
142	1	300	0	1.85	3.01	77.1	57.1	50.4	26.7	1.00E-03	3.02E+03
143	1	300	0	1.85	3.01	86.3	66.3	77.0	9.3	4.77E-05	1.44E+02
144	1	300	0	1.85	3.01	87.8	67.8	76.8	10.9	3.08E-04	9.26E+02
145	1	294	0	1.85	2.95	83.8	63.8	77.8	6.0	1.05E-04	3.10E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	2094	11.3	21.0	78.4	58.4	45.3	10.9	1.7	3.43E-05	2.00E-03	4.21E+04
31	8916	48.4	89.5	85.8	65.8	75.3	13.8	6.0	4.38E-05	2.88E-03	2.58E+05

*!
*TIM 04:12:00 53 46.60 130 54.10
*TRA 186 26 148 154 2100 6.674 48.757 0.717 9.313
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
148	1	300	0	1.85	3.27	80.3	60.3	65.4	14.9	2.19E-03	7.15E+03
149	1	300	0	1.85	3.27	88.7	68.7	82.5	6.2	2.61E-04	8.54E+02
150	1	300	0	1.85	3.27	90.1	70.1	83.8	6.2	2.19E-03	7.16E+03
151	1	300	0	1.85	3.27	87.0	67.0	80.0	7.0	8.60E-04	2.81E+03

152	1	300	0	1.85	3.27	86.4	66.4	78.7	7.7	4.45E-04	1.46E+03
153	1	300	0	1.85	3.27	80.0	60.0	74.6	5.4	4.81E-04	1.57E+03
154	1	300	0	1.85	3.27	60.8	40.8	50.1	10.7	1.34E-02	4.37E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	2100	12.4	22.9	81.9	61.9	58.5	10.3	9.1	4.57E-05	2.83E-03	6.47E+04
38	11016	60.7	112.4	85.0	65.0	72.0	13.1	6.6	4.42E-05	2.87E-03	3.23E+05

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*!
*TIM 05:03:00  53 50.00 130 45.10
*TRA    188      25     157      165    2455    6.765 229.428    0.783    8.636
*LOU
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PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
157	1	300	0	1.85	2.84	68.2	48.2	58.0	10.2	8.24E-03	2.34E+04
158	1	300	0	1.85	2.84	90.2	70.2	74.1	16.1	1.65E-03	4.69E+03
159	1	300	0	1.85	2.84	100.8	80.8	86.6	14.2	9.18E-03	2.60E+04
160	1	300	0	1.85	2.84	110.6	90.6	91.3	19.2	2.68E-02	7.61E+04
161	1	300	0	1.85	2.84	112.5	92.5	104.5	8.1	5.06E-03	1.44E+04
162	1	300	0	1.85	2.84	98.9	78.9	91.5	7.4	1.79E-03	5.09E+03
163	1	300	0	1.85	2.84	90.0	70.0	81.8	8.2	1.08E-03	3.06E+03
164	1	300	0	1.85	2.84	76.3	56.3	75.0	1.3	1.00E-03	2.84E+03
165	1	55	0	1.85	0.52	58.0	38.0	53.0	5.0	1.38E-05	7.17E+00

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2455	12.5	23.2	92.6	72.6	85.7	15.0	4.8	9.22E-05	6.70E-03	1.55E+05
47	13471	73.2	135.6	86.3	66.3	76.4	13.7	6.0	5.32E-05	3.53E-03	4.78E+05

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*!-------------------------------------------------------------------------------
*TIM 05:57:00  53 45.00 130 52.40          !  Browning Entr. long - coverage 4
*TRA    190      24     168      175    2273    6.898  48.172    0.783    8.805
*ZER
*LOU
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PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
168	1	300	0	1.85	3.12	71.6	51.6	62.8	8.8	6.99E-03	2.18E+04
169	1	300	0	1.85	3.12	94.4	74.4	82.8	11.6	1.84E-03	5.76E+03
170	1	300	0	1.85	3.12	104.8	84.8	93.7	11.0	2.04E-03	6.38E+03
171	1	300	0	1.85	3.12	118.0	98.0	103.2	14.8	1.93E-03	6.02E+03
172	1	300	0	1.85	3.12	110.3	90.3	94.9	15.4	4.20E-03	1.31E+04
173	1	300	0	1.85	3.12	94.7	74.7	80.3	14.5	1.81E-03	5.65E+03
174	1	300	0	1.85	3.12	84.8	64.8	69.7	15.2	1.51E-03	4.72E+03
175	1	173	0	1.85	1.80	68.6	48.6	62.6	6.0	2.06E-04	3.71E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2273	12.8	23.7	94.8	74.8	80.1	12.2	4.8	3.61E-05	2.70E-03	6.39E+04
8	2273	12.8	23.7	94.8	74.8	80.1	12.2	4.8	3.61E-05	2.70E-03	6.39E+04

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*!
*TIM 06:52:00  53 48.90 130 42.40
*TRA    192      23     178      186    2581    7.541 229.477    0.850    8.872
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*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
178	1	300	0	1.85	3.01	81.8	61.8	67.8	14.0	5.91E-04	1.78E+03
179	1	300	0	1.85	3.01	96.3	76.3	73.8	22.5	1.77E-03	5.32E+03
180	1	300	0	1.85	3.01	100.8	80.8	83.9	16.9	7.12E-03	2.14E+04
181	1	300	0	1.85	3.01	110.8	90.8	95.0	15.9	5.90E-03	1.77E+04
182	1	300	0	1.85	3.01	109.7	89.7	99.1	10.6	4.16E-03	1.25E+04
183	1	300	0	1.85	3.01	108.8	88.8	93.2	15.6	4.82E-03	1.45E+04
184	1	300	0	1.85	3.01	98.5	78.5	91.2	7.2	5.78E-03	1.74E+04
185	1	300	0	1.85	3.01	72.3	52.3	63.6	8.7	4.54E-03	1.37E+04
186	1	181	0	1.85	1.81	53.8	33.8	0.0	0.0	0.00E+00	0.00E+00

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
9	2581	14.0	25.9	94.3	74.3	86.7	13.3	7.4	5.42E-05	4.03E-03	1.04E+05
17	4854	26.7	49.5	94.5	74.5	84.2	12.9	6.4	4.55E-05	3.39E-03	1.68E+05

*!
*TIM 08:55:00 53 48.60 130 55.50
*TRA 194 28 200 206 1848 5.545 48.145 0.617 8.992
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
200	1	300	0	1.85	3.09	75.9	55.9	65.0	10.9	2.36E-03	7.29E+03
201	1	300	0	1.85	3.09	80.9	60.9	74.1	6.8	6.21E-04	1.92E+03
202	1	300	0	1.85	3.09	77.9	57.9	67.0	10.9	1.04E-03	3.20E+03
203	1	300	0	1.85	3.09	75.7	55.7	68.6	7.1	1.17E-01	3.61E+05
204	1	300	0	1.85	3.09	83.8	63.8	68.7	15.1	1.27E-01	3.92E+05
205	1	300	0	1.85	3.09	72.1	52.1	62.4	9.7	1.15E-01	3.55E+05
206	1	48	0	1.85	0.49	53.2	33.2	49.2	4.0	1.24E-03	6.12E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
7	1848	10.3	19.0	77.1	57.1	66.6	10.8	7.4	1.03E-03	5.89E-02	1.12E+06
24	6702	37.0	68.5	89.7	69.7	68.9	11.0	7.3	2.70E-04	1.88E-02	1.29E+06

*!
*TIM 09:40:00 53 51.50 130 46.80
*TRA 196 27 209 215 2100 6.124 230.446 0.717 8.545
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
209	1	300	0	1.85	3.00	53.8	33.8	54.7	-1.0	9.00E-04	2.70E+03
210	1	300	0	1.85	3.00	79.6	59.6	67.5	12.1	1.51E-01	4.54E+05
211	1	300	5	1.85	3.00	82.8	62.8	76.6	6.2	1.11E-01	3.32E+05
212	1	300	0	1.85	3.00	74.8	54.8	66.7	8.1	3.31E-02	9.92E+04
213	1	300	0	1.85	3.00	84.2	64.2	72.6	11.6	1.07E-02	3.22E+04
214	1	300	0	1.85	3.00	85.6	65.6	76.4	9.2	3.42E-03	1.03E+04
215	1	300	0	1.85	3.00	79.2	59.2	74.2	5.0	1.75E-04	5.27E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
7	2100	11.3	21.0	77.1	57.1	70.9	9.4	3.6	7.75E-04	4.43E-02	9.30E+05

```
  31  8802  48.4  89.5  86.8  66.8  69.8  10.4   5.7 3.71E-04 2.48E-02 2.22E+06

*!
*TIM 10:30:00  53 46.60 130 54.10
*TRA    198     26    218     225   2315   6.674  48.757   0.767   8.706
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
    218    1  300    0  1.85  2.97  75.7  55.7  69.6   6.2 4.13E-04 1.23E+03
    219    1  300    0  1.85  2.97  84.5  64.5  78.2   6.2 1.89E-03 5.59E+03
    220    1  300    0  1.85  2.97  89.0  69.0  73.5  15.5 2.00E-01 5.94E+05
    221    1  300    6  1.85  2.97  85.6  65.6  77.9   7.7 1.09E-01 3.23E+05
    222    1  300    1  1.85  2.97  84.2  64.2  79.0   5.2 2.04E-02 6.06E+04
    223    1  300   14  1.85  2.97  83.3  63.3  74.6   8.7 3.69E-01 1.09E+06
    224    1  300    0  1.85  2.97  72.2  52.2  63.4   8.8 2.17E-03 6.44E+03
    225    1  215    0  1.85  2.13  54.5  34.5  49.9   4.6 4.02E-05 8.54E+01

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   8  2315  12.4  22.9  79.5  59.5  74.9  10.4   6.9 1.53E-03 9.11E-02 2.09E+06
  39 11117  60.7 112.4  85.3  65.3  72.3  10.4   6.3 5.87E-04 3.83E-02 4.31E+06

*!
*TIM 11:24:00  53 50.00 130 45.10
*TRA    200     25    228     235   2370   6.765 229.428   0.800   8.456
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
    228    1  300    0  1.85  2.94  72.0  52.0  61.3  10.7 3.34E-04 9.80E+02
    229    1  300    0  1.85  2.94  91.7  71.7  69.7  22.1 1.66E-01 4.87E+05
    230    1  300    0  1.85  2.94 100.5  80.5  84.0  16.5 2.53E-01 7.44E+05
    231    1  300    0  1.85  2.94 112.4  92.4  91.8  20.6 3.05E-01 8.96E+05
    232    1  300    5  1.85  2.94 105.3  85.3  89.8  15.5 4.17E-02 1.22E+05
    233    1  300    6  1.85  2.94  93.9  73.9  84.9   9.1 1.46E-01 4.30E+05
    234    1  300    0  1.85  2.94  84.9  64.9  74.9   9.9 1.45E-03 4.25E+03
    235    1  270    0  1.85  2.64  67.6  47.6  69.1  -1.6 2.14E-04 5.66E+02

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   8  2370  12.5  23.2  91.3  71.3  84.4  17.6   5.1 1.62E-03 1.16E-01 2.69E+06
  47 13487  73.2 135.6  86.3  66.3  76.9  13.2   5.8 7.77E-04 5.15E-02 6.99E+06

*!-------------------------------------------------------------------------------
*TIM 12:20:00  53 45.00 130 52.40          !  Browning Entr. long - coverage 1
*TRA    202     24    238     245   2343   6.898  48.172   0.783   8.805
*ZER
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
    238    1  300    0  1.85  3.03  64.5  44.5  54.0  10.5 9.47E-03 2.87E+04
    239    1  300    0  1.85  3.03  88.9  68.9  77.8  11.1 3.04E-02 9.21E+04
    240    1  300    5  1.85  3.03 100.0  80.0  86.1  13.8 7.39E-02 2.24E+05
    241    1  300    0  1.85  3.03 109.8  89.8  93.4  16.5 8.38E-03 2.54E+04
    242    1  300    0  1.85  3.03 120.7 100.7  90.9  29.8 9.31E-02 2.82E+05
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   243     1  300     0  1.85   3.03   94.1   74.1   82.6   11.5  3.10E-01  9.41E+05
   244     1  300     0  1.85   3.03   90.7   70.7   84.4    6.3  1.91E-03  5.80E+03
   245     1  243     0  1.85   2.45   73.3   53.3   64.2    9.2  3.45E-03  8.47E+03

  N      P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
  #      #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2       KG
  8   2343  12.8  23.7  93.2  73.2  83.9  15.0   7.5 9.27E-04 6.79E-02 1.61E+06
  8   2343  12.8  23.7  93.2  73.2  83.9  15.0   7.5 9.27E-04 6.79E-02 1.61E+06

*!
*TIM 13:16:00  53 48.90 130 42.40
*TRA    204      23     248      256    2561   7.541 229.477   0.817   9.234
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D  BIOMASS
      #    #    #    #    KM  KM2     M     M     M     M    KG/M2       KG
    248    1  300    0  1.85   3.03  79.0  59.0  69.2   9.8  1.44E-04 4.37E+02
    249    1  300    0  1.85   3.03  93.1  73.1  87.7   5.4  8.56E-02 2.59E+05
    250    1  300    0  1.85   3.03  99.9  79.9  95.0   4.9  1.44E-02 4.36E+04
    251    1  300    0  1.85   3.03 111.3  91.3  95.1  16.2  7.11E-03 2.15E+04
    252    1  300    0  1.85   3.03 106.0  86.0 109.8  -3.7  5.54E-04 1.68E+03
    253    1  300    0  1.85   3.03 107.1  87.1  61.2  45.9  2.01E-03 6.09E+03
    254    1  300    0  1.85   3.03  97.2  77.2  80.0  17.2  7.41E-02 2.25E+05
    255    1  300    0  1.85   3.03  71.2  51.2  67.7   3.6  4.80E-02 1.45E+05
    256    1  161    0  1.85   1.63  53.0  33.0  25.0  28.0  2.14E-06 3.48E+00

  N      P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
  #      #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2       KG
  9   2561  14.0  25.9  92.9  72.9  81.6   9.4   7.4 3.72E-04 2.72E-02 7.03E+05
 17   4904  26.7  49.5  93.1  73.1  83.2  13.3   7.4 6.38E-04 4.66E-02 2.31E+06

*!-------------------------------------------------------------------------------
*IEI 85E017.INT
*DAT 04-DEC-85
*! TIM 12:23:00
*! BON #11
*IEI 85E018.INT
*TIM 12:40:00  53 48.89 130 28.11              ! Kitkatla Inlet - coverage 1
*TRA    216      K1       1        2     455   3.140 118.117   0.417   7.537
*ZER
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D  BIOMASS
      #    #    #    #    KM  KM2     M     M     M     M    KG/M2       KG
      1    1  300    1  1.85   7.10  64.3  44.3  48.1  16.1  5.71E-06 4.05E+01
      2    1  155    2  1.85   3.67  55.8  35.8  39.8  16.0  7.73E-02 2.84E+05

  N      P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
  #      #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2       KG
  2    455   5.8  10.8  61.4  41.4  39.8  16.0   4.8 6.36E-04 2.63E-02 2.84E+05
  2    455   5.8  10.8  61.4  41.4  39.8  16.0   4.8 6.36E-04 2.63E-02 2.84E+05

*!
*TIM 13:05:00  53 47.41 130 23.42
*TRA    217      K2       3        5     748   1.927 102.892   0.250   7.709
*LOU
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PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
3	1	300	2	1.85	2.65	68.1	48.1	39.6	28.5	1.91E-05	5.05E+01
4	1	300	0	1.85	2.65	68.1	48.1	46.3	21.8	9.19E-06	2.44E+01
5	1	148	0	1.85	1.31	106.0	86.0	88.0	18.0	6.07E-05	7.93E+01

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	748	3.6	6.6	75.6	55.6	65.6	22.0	2.2	4.20E-07	2.33E-05	1.54E+02
5	1203	9.4	17.4	66.8	46.8	39.9	16.0	4.8	3.49E-04	1.63E-02	2.84E+05

*!
*TIM 13:20:00 53 46.98 130 20.24
*TRA 218 K3 6 8 679 1.590 142.431 0.233 6.813
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
6	1	300	0	1.85	2.41	88.7	68.7	66.6	22.0	4.23E-03	1.02E+04
7	1	300	0	1.85	2.41	113.4	93.4	110.3	3.2	1.11E-03	2.67E+03
8	1	79	0	1.85	0.63	106.1	86.1	96.8	9.3	4.66E-05	2.96E+01

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	679	2.9	5.5	101.6	81.6	75.7	18.1	0.9	2.90E-05	2.36E-03	1.29E+04
8	1882	12.3	22.8	75.1	55.1	41.4	16.1	4.7	2.36E-04	1.30E-02	2.97E+05

*!
*TIM 13:34:00 53 45.72 130 18.60
*TRA 219 K4 9 9 287 0.626 202.182 0.083 7.516
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
9	1	287	8	1.85	2.15	83.0	63.0	69.3	13.7	5.28E-02	1.13E+05

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
1	287	1.2	2.1	83.0	63.0	69.3	13.7	0.6	8.38E-04	5.28E-02	1.13E+05
9	2169	13.5	25.0	75.8	55.8	49.1	15.4	3.5	2.94E-04	1.64E-02	4.10E+05

*!
*TIM 13:39:00 53 45.14 130 19.00
*TRA 220 K5 10 13 1146 3.298 231.783 0.383 8.602
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
10	1	300	5	1.85	2.96	112.4	92.4	105.6	6.9	3.92E-03	1.16E+04
11	1	300	0	1.85	2.96	120.3	100.3	126.0	-5.8	3.36E-03	9.95E+03
12	1	300	7	1.85	2.96	141.5	121.5	125.0	16.5	4.42E-04	1.31E+03
13	1	246	0	1.85	2.43	141.0	121.0	140.2	0.8	1.61E-03	3.92E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	1146	6.1	11.3	128.2	108.2	119.2	1.8	2.2	2.19E-05	2.37E-03	2.68E+04
13	3315	19.6	36.3	92.1	72.1	53.4	14.6	3.4	1.67E-04	1.20E-02	4.37E+05

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*!-------------------------------------------------------------------------------
*IEI 85E018.INT
*TIM 14:31:00  53 43.10 130 23.38              !  Kitkatla Inlet  - coverage 2
*TRA    222     K5      1       2     455    3.298   51.783   0.283   11.639
*ZER
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
      1    1  300    1  1.85   7.46  64.3  44.3  48.1  16.1  5.71E-06  4.26E+01
      2    1  155    2  1.85   3.85  55.8  35.8  39.8  16.0  7.73E-02  2.98E+05
-
   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   2   455   6.1  11.3  61.4  41.4  39.8  16.0   5.1 6.36E-04 2.63E-02 2.98E+05
   2   455   6.1  11.3  61.4  41.4  39.8  16.0   5.1 6.36E-04 2.63E-02 2.98E+05

*!
*TIM 14:48:00  53 45.14 130 19.00
*TRA    223     K4      3       3     300    0.626   22.182   0.050   12.527
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
      3    1  300    2  1.85   2.15  68.1  48.1  39.6  28.5  1.91E-05  4.09E+01

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   1   300   1.2   2.1  68.1  48.1  39.6  28.5   0.6 3.96E-07 1.91E-05 4.09E+01
   3   755   7.3  13.5  62.5  42.5  39.8  16.0   5.1 5.21E-04 2.21E-02 2.98E+05

*!
*TIM 14:51:00  53 45.72 130 18.60
*TRA    224     K3      4       5     448    1.590  322.431   0.150   10.598
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
      4    1  300    0  1.85   3.65  68.1  48.1  46.3  21.8  9.19E-06  3.36E+01
      5    1  148    0  1.85   1.80 106.0  86.0  88.0  18.0  6.07E-05  1.09E+02

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   2   448   2.9   5.5  80.6  60.6  78.2  18.9   2.1 4.32E-07 2.62E-05 1.43E+02
   5  1203  10.2  18.9  67.7  47.7  39.9  16.0   5.1 3.30E-04 1.58E-02 2.98E+05

*!
*TIM 15:00:00  53 46.98 130 20.24
*TRA    225     K2      6       8     679    1.927  282.892   0.217    8.895
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
      6    1  300    0  1.85   2.92  88.7  68.7  66.6  22.0  4.23E-03  1.24E+04
      7    1  300    0  1.85   2.92 113.4  93.4 110.3   3.2  1.11E-03  3.24E+03
      8    1   79    0  1.85   0.77 106.1  86.1  96.8   9.3  4.66E-05  3.58E+01
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N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	679	3.6	6.6	101.6	81.6	75.7	18.1	1.1	2.90E-05	2.36E-03	1.56E+04
8	1882	13.8	25.5	76.5	56.5	41.7	16.1	4.9	2.18E-04	1.23E-02	3.14E+05

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*!
*TIM 15:13:00  53 47.41 130 23.42
*TRA    226      K1       9       11     887    3.140 298.117    0.350    8.973
*LOU
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PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
9	1	287	8	1.85	3.48	83.0	63.0	69.3	13.7	5.28E-02	1.84E+05
10	1	300	5	1.85	3.64	112.4	92.4	105.6	6.9	3.92E-03	1.43E+04
11	1	300	0	1.85	3.64	120.3	100.3	126.0	-5.8	3.36E-03	1.22E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	887	5.8	10.8	105.6	85.6	75.1	12.1	1.3	2.29E-04	1.96E-02	2.11E+05
11	2769	19.6	36.3	85.1	65.1	55.1	14.5	3.4	2.22E-04	1.44E-02	5.24E+05

```
*!-------------------------------------------------------------------------------
*DAT 05-DEC-85
*IEI 85E020.INT
*TIM 12:49:00  54  4.38 130 15.54              ! Chatham Sound South
*TRA    228      C1       1        6    1576    4.852 299.784    0.533    9.097
*ZER
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
1	1	300	1	1.85	3.17	96.4	76.4	84.3	12.0	2.28E-02	7.24E+04
2	1	300	0	1.85	3.17	89.1	69.1	84.4	4.7	1.09E-02	3.44E+04
3	1	300	17	1.85	3.17	100.9	80.9	81.9	19.0	5.60E-02	1.77E+05
4	1	300	0	1.85	3.17	75.1	55.1	75.8	-0.7	2.22E-02	7.05E+04
5	1	300	0	1.85	3.17	63.3	43.3	58.0	5.3	1.07E-03	3.38E+03
6	1	76	0	1.85	0.80	70.1	50.1	62.3	7.8	6.71E-03	5.39E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
6	1576	9.0	16.6	84.2	64.2	80.9	12.1	3.9	3.40E-04	2.18E-02	3.63E+05
6	1576	9.0	16.6	84.2	64.2	80.9	12.1	3.9	3.40E-04	2.18E-02	3.63E+05

```
*!
*TIM 13:21:00  54  6.79 130 22.72
*TRA    229      C2       7       10    1048    2.040 155.732    0.450    4.534
*LOU
```

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
7	1	300	0	1.85	2.00	77.5	57.5	71.7	5.8	1.02E-01	2.03E+05
8	1	300	0	1.85	2.00	85.8	65.8	78.0	7.8	7.53E-02	1.51E+05
9	1	300	0	1.85	2.00	90.9	70.9	82.1	8.8	4.13E-02	8.27E+04
10	1	148	0	1.85	0.99	96.9	76.9	86.6	10.3	5.78E-02	5.71E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG

```
   4  1048   3.8   7.0  86.4  66.4  77.1   7.4   1.6 1.06E-03 7.06E-02 4.94E+05
  10  2624  12.8  23.6  84.9  64.9  78.7   9.4   2.5 5.59E-04 3.63E-02 8.57E+05

*!
*TIM 13:48:00  54  4.93 130 21.29
*TRA    230     C3     11      14   1119   3.374 317.061   0.383   8.802
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
     11    1  300    1  1.85   3.10 100.5  80.5  87.9  12.6 3.31E-02 1.03E+05
     12    1  300    0  1.85   3.10 127.1 107.1 117.4   9.7 6.28E-02 1.95E+05
     13    1  300    0  1.85   3.10 106.2  86.2  98.6   7.6 6.94E-03 2.15E+04
     14    1  219    0  1.85   2.26 101.7  81.7  90.9  10.8 4.10E-03 9.28E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   4  1119   6.2  11.6 109.4  89.4 106.2  10.5   2.2 3.18E-04 2.84E-02 3.28E+05
  14  3743  19.0  35.2  92.9  72.9  86.3   9.7   2.4 4.62E-04 3.37E-02 1.19E+06

*!
*TIM 14:11:00  54  7.40 130 25.21
*TRA    231     C4     15      16    570   1.120  91.024   0.183   6.106
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
     15    1  300    0  1.85   2.02  93.9  73.9  84.2   9.6 6.76E-03 1.37E+04
     16    1  270    0  1.85   1.82  93.0  73.0  80.1  12.9 3.11E-02 5.65E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   2   570   2.1   3.8  93.5  73.5  80.9  12.3   1.4 2.49E-04 1.83E-02 7.02E+04
  16  4313  21.1  39.1  93.0  73.0  86.0   9.9   2.4 4.41E-04 3.22E-02 1.26E+06

*!
*TIM 14:22:00  54  7.38 130 23.30
*TRA    232     C5     17      19    770   2.418 346.408   0.267   9.066
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
     17    1  300    0  1.85   3.23  82.1  62.1  75.7   6.4 2.29E-02 7.39E+04
     18    1  300    0  1.85   3.23  83.2  63.2  71.6  11.6 1.90E-02 6.14E+04
     19    1  170    0  1.85   1.83  85.5  65.5  75.8   9.7 2.41E-02 4.41E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   3   770   4.5   8.3  83.3  63.3  74.3   9.0   2.2 3.42E-04 2.16E-02 1.79E+05
  19  5083  25.6  47.3  91.3  71.3  84.6   9.7   2.4 4.25E-04 3.03E-02 1.44E+06

*!
*TIM 14:38:00  54  9.73 130 24.27
*TRA    233     C6     20      23   1049   2.790 291.001   1.333   2.093
*FIR 20
*LAS 20
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
```

	#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
	20	1	300	0	1.85	2.74	85.7	65.7	72.6	13.1	2.79E-02	7.63E+04
*LZE	21,1											
	21	1	100	7	1.85	0.91	64.0	44.0	0.0	0.0	0.00E+00	0.00E+00
*LOU	23											
	21	2	200	7	1.85	1.82	86.9	66.9	80.9	6.0	1.53E-02	2.79E+04
	22	1	300	0	1.85	2.74	93.4	73.4	73.0	20.4	1.58E-02	4.33E+04
	23	1	149	0	1.85	1.36	91.8	71.8	83.7	8.1	6.93E-03	9.42E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
5	1049	5.2	9.6	86.9	66.9	74.9	13.6	2.1	2.45E-04	1.64E-02	1.57E+05
24	6132	30.7	56.9	90.6	70.6	83.6	10.1	2.3	3.97E-04	2.80E-02	1.59E+06

*!
*TIM 15:58:00 54 10.73 130 28.72
*TRA 234 C7 24 30 2036 6.485 270.353 23.700 0.274
*LOU

	PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
	#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
	24	1	300	0	1.85	3.28	87.6	67.6	81.5	6.1	6.48E-04	2.13E+03
	25	1	300	0	1.85	3.28	84.0	64.0	76.3	7.7	2.67E-03	8.76E+03
	26	1	300	0	1.85	3.28	80.5	60.5	81.1	-0.6	3.62E-03	1.19E+04
	27	1	300	0	1.85	3.28	103.5	83.5	89.5	14.0	5.03E-03	1.65E+04
	28	1	300	0	1.85	3.28	114.2	94.2	102.9	11.2	2.79E-02	9.15E+04
	29	1	300	0	1.85	3.28	135.1	115.1	104.6	30.5	1.78E-02	5.82E+04
	30	1	236	0	1.85	2.58	97.4	77.4	78.3	19.1	1.07E-02	2.76E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	2036	12.0	22.2	100.4	80.4	96.7	16.8	8.3	1.21E-04	9.74E-03	2.17E+05
31	8168	42.7	79.2	93.3	73.3	85.2	10.9	3.0	3.12E-04	2.29E-02	1.81E+06

*!
*TIM 15:40:00 54 10.77 130 39.80
*TRA 235 C8 31 39 2483 7.692 146.313 0.833 9.230
*LOU

	PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
	#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
	31	1	300	0	1.85	3.19	82.4	62.4	80.2	2.2	3.56E-02	1.13E+05
	32	1	300	0	1.85	3.19	86.5	66.5	82.9	3.7	2.51E-02	7.99E+04
	33	1	300	0	1.85	3.19	72.7	52.7	63.1	9.6	1.64E-04	5.21E+02
	34	1	300	0	1.85	3.19	72.8	52.8	62.6	10.1	2.85E-04	9.08E+02
	35	1	300	0	1.85	3.19	60.7	40.7	49.3	11.4	1.41E-04	4.49E+02
	36	1	300	0	1.85	3.19	44.6	24.6	40.5	4.1	7.40E-05	2.36E+02
	37	1	300	0	1.85	3.19	42.2	22.2	29.8	12.4	5.24E-05	1.67E+02
	38	1	300	0	1.85	3.19	83.8	63.8	83.4	0.4	6.81E-03	2.17E+04
	39	1	83	0	1.85	0.88	119.2	99.2	102.1	17.1	2.39E-03	2.11E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2483	14.2	26.4	69.9	49.9	81.4	2.8	2.9	1.67E-04	8.32E-03	2.19E+05
40	10651	57.0	105.5	87.5	67.5	84.8	10.0	3.0	2.85E-04	1.92E-02	2.03E+06

```
*!
*TIM 16:30:00  54  4.37 130 32.52
*TRA    236     C9      40      45   1553   5.592  43.449   0.500  11.185
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
     40    1  300    0  1.85   3.71 130.1 110.1  96.3  33.8 4.00E-04  1.48E+03
     41    1  300    6  1.85   3.71 133.8 113.8 109.0  24.7 5.50E-03  2.04E+04
     42    1  300   12  1.85   3.71  96.9  76.9  78.5  18.4 2.08E-02  7.70E+04
     43    1  300    0  1.85   3.71  96.4  76.4  64.9  31.5 1.55E-02  5.76E+04
     44    1  300    2  1.85   3.71  90.4  70.4  76.2  14.1 2.03E-02  7.54E+04
     45    1   53    0  1.85   0.65  93.5  73.5  76.9  16.7 4.51E-03  2.95E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   6  1553  10.4  19.2 109.0  89.0  77.2  20.9   6.6 1.38E-04 1.22E-02 2.35E+05
  46 12204  67.3 124.7  90.8  70.8  84.0  11.2   3.4 2.56E-04 1.81E-02 2.26E+06

*!
*TIM 17:00:00  54  8.43 130 25.96
*TRA    237     C10     46      48    758   2.855 297.088   0.267  10.706
*FIR 46
*LZE 47
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
     46    1  300   18  1.85   3.88 105.1  85.1   0.0   0.0 0.00E+00  0.00E+00
     47    1  300    1  1.85   3.88  99.7  79.7   0.0   0.0 0.00E+00  0.00E+00
*LOU 48
     48    1  158    4  1.85   2.04  96.3  76.3  79.5  16.8 1.44E-03  2.93E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   3   758   5.3   9.8 101.2  81.2  79.5  16.8   4.7 3.69E-06 2.99E-04 2.93E+03
  49 12962  72.6 134.5  91.5  71.5  84.0  11.2   3.4 2.36E-04 1.68E-02 2.27E+06

*!
*TIM 17:16:00  54  9.73 130 30.30
*TRA    238     C11     49      52    940   3.120 266.876   0.350   8.913
*FIR 49
*LAS 49
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M    KG/M2        KG
     49    1  300    6  1.85   3.42  98.2  78.2  85.3  12.9 7.10E-02  2.42E+05
*LZE 50
     50    1  300   10  1.85   3.42 100.9  80.9   0.0   0.0 0.00E+00  0.00E+00
*LOU 52
     51    1  300    0  1.85   3.42 101.3  81.3  68.0  33.3 1.43E-02  4.88E+04
     52    1   40    0  1.85   0.46  86.9  66.9  59.1  27.8 1.47E-02  6.69E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM   KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   4   940   5.8  10.7  99.6  79.6  81.9  16.6   1.6 3.50E-04 2.78E-02 2.98E+05
  53 13902  78.4 145.2  92.1  72.1  83.7  11.8   3.2 2.45E-04 1.77E-02 2.56E+06
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*!
*TIM 17:37:00  54  9.56 130 35.62
*TRA    239    C12      53      57   1441   4.494 147.503   0.433  10.370
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
     53    1  300    0  1.85   3.21  73.9  53.9  52.3  21.7  6.95E-03  2.23E+04
     54    1  300    0  1.85   3.21  79.5  59.5  51.0  28.5  1.22E-02  3.92E+04
     55    1  300    0  1.85   3.21  75.9  55.9  53.3  22.5  1.08E-02  3.46E+04
     56    1  300    0  1.85   3.21  83.5  63.5  49.9  33.6  4.86E-02  1.56E+05
     57    1  241    0  1.85   2.58 104.0  84.0  80.3  23.7  1.61E-02  4.14E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2        KG
   5  1441   8.3  15.4  82.5  62.5  54.9  29.3   5.2 3.05E-04 1.90E-02 2.93E+05
  58 15343  86.7 160.6  91.2  71.2  80.8  13.6   3.4 2.50E-04 1.78E-02 2.86E+06

*!
*TIM 18:03:00  54  5.77 130 31.50
*TRA    240    C13      58      61   1188   4.131  37.897   0.450   9.180
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
     58    1  300    0  1.85   3.58 112.6  92.6  98.9  13.6  1.69E-03  6.04E+03
     59    1  300    0  1.85   3.58  82.8  62.8  48.9  33.9  2.27E-02  8.13E+04
     60    1  300    7  1.85   3.58  98.9  78.9  70.7  28.2  7.89E-03  2.82E+04
     61    1  288    0  1.85   3.43 102.2  82.2  65.3  36.9  6.39E-03  2.19E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2        KG
   4  1188   7.7  14.2  99.1  79.1  58.2  32.3   3.8 1.23E-04 9.71E-03 1.38E+05
  62 16531  94.4 174.8  91.8  71.8  79.7  14.5   3.4 2.39E-04 1.71E-02 3.00E+06

*!-------------------------------------------------------------------------------
*! TIM 18:53:00
*! BON #12
*DAT 06-DEC-85
*IEI 85E021.INT
*TIM 11:25:00  53 46.50 130 47.30            !  Browning Entr. - long 13-23
*TRA    242     23       3       7   1318   3.472 228.519   0.467   7.441
*ZER
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2         KG
      3    1  300    1  1.85   2.71 113.1  93.1 107.9   5.2  9.09E-04  2.47E+03
      4    1  300    0  1.85   2.71 106.2  86.2  99.5   6.7  2.93E-03  7.93E+03
      5    1  300    0  1.85   2.71  94.3  74.3  73.3  21.0  1.53E-01  4.15E+05
      6    1  300    0  1.85   2.71  66.1  46.1  49.2  16.9  2.09E-05  5.67E+01
      7    1  118    0  1.85   1.07  52.7  32.7  41.3  11.4  1.80E-04  1.92E+02

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2        KG
   5  1318   6.4  11.9  91.2  71.2  74.0  20.6   3.6 5.03E-04 3.58E-02 4.26E+05
   5  1318   6.4  11.9  91.2  71.2  74.0  20.6   3.6 5.03E-04 3.58E-02 4.26E+05
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*!
*TIM 12:00:00 53 43.60 130 50.10
*TRA 244 22 10 13 1113 3.385 47.200 0.400 8.463
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
10	1	300	0	1.85	3.13	58.1	38.1	53.3	4.8	6.89E-04	2.16E+03
11	1	300	0	1.85	3.13	96.3	76.3	57.7	38.6	1.50E-03	4.71E+03
12	1	300	0	1.85	3.13	114.4	94.4	104.2	10.1	1.34E-03	4.18E+03
13	1	213	0	1.85	2.22	118.4	98.4	116.0	2.4	7.06E-04	1.57E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	1113	6.3	11.6	95.1	75.1	79.6	18.9	3.2	1.45E-05	1.09E-03	1.26E+04
9	2431	12.7	23.5	93.1	73.1	74.2	20.5	3.6	2.55E-04	1.86E-02	4.39E+05

*!
*TIM 12:33:00 53 45.30 130 44.50
*TRA 246 21 16 19 1400 3.120 227.687 0.383 8.138
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
16	1	300	0	1.85	2.29	126.6	106.6	118.9	7.7	3.34E-03	7.66E+03
17	1	300	0	1.85	2.29	125.1	105.1	120.5	4.6	3.68E-03	8.43E+03
18	1	300	0	1.85	2.29	113.4	93.4	100.0	13.3	1.00E-03	2.29E+03
19	1	300	0	1.85	2.29	86.3	66.3	69.7	16.6	6.61E-06	1.52E+01
23	2	200	0	1.85	1.53	113.4	93.4	106.1	7.3	8.14E-04	1.24E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
5	1400	5.8	10.7	112.9	92.9	116.5	7.0	1.7	1.98E-05	1.84E-03	1.96E+04
14	3831	18.5	34.2	99.3	79.3	76.0	20.0	3.5	1.69E-04	1.34E-02	4.58E+05

*!
*TIM 13:05:00 53 42.30 130 47.90
*TRA 248 20 22 25 1159 3.696 47.430 0.367 10.079
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
22	1	400	0	1.85	4.38	88.6	68.6	67.8	20.8	5.40E-06	2.36E+01
23	2	200	0	1.85	2.19	113.4	93.4	106.1	7.3	8.14E-04	1.78E+03
24	1	300	0	1.85	3.28	125.6	105.6	119.1	6.5	9.16E-03	3.01E+04
25	1	259	0	1.85	2.83	135.7	115.7	115.8	19.9	2.19E-02	6.21E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	1159	6.8	12.7	113.0	93.0	116.7	15.4	5.5	7.97E-05	7.41E-03	9.39E+04
18	4990	25.3	46.9	103.0	83.0	82.9	19.2	3.9	1.42E-04	1.18E-02	5.52E+05

*!
*TIM 13:33:00 53 44.20 130 41.90
*TRA 250 19 27 31 1500 4.205 228.246 0.533 7.884
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
27	1	300	0	1.85	2.88	129.9	109.9	106.4	23.5	1.61E-02	4.64E+04
28	1	300	0	1.85	2.88	130.5	110.5	125.3	5.2	1.27E-02	3.66E+04
29	1	300	0	1.85	2.88	122.7	102.7	120.4	2.3	3.35E-03	9.66E+03
30	1	300	0	1.85	2.88	113.4	93.4	104.5	8.8	6.47E-05	1.87E+02
31	1	300	0	1.85	2.88	71.2	51.2	54.0	17.2	8.56E-03	2.47E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
5	1500	7.8	14.4	113.5	93.5	102.4	14.7	2.8	8.71E-05	8.15E-03	1.18E+05
23	6490	33.1	61.3	105.5	85.5	86.3	18.4	3.7	1.28E-04	1.09E-02	6.70E+05

*!
*TIM 14:11:00 53 40.30 130 46.90
*TRA 252 18 34 42 2528 8.055 47.903 0.833 9.666
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
34	1	300	0	1.85	3.28	71.2	51.2	48.5	22.7	9.11E-06	2.99E+01
35	1	300	0	1.85	3.28	117.3	97.3	102.7	14.5	1.25E-03	4.08E+03
36	1	300	0	1.85	3.28	124.1	104.1	118.5	5.6	5.52E-03	1.81E+04
37	1	300	0	1.85	3.28	127.1	107.1	118.8	8.3	3.81E-03	1.25E+04
38	1	300	0	1.85	3.28	126.2	106.2	117.9	8.3	1.29E-03	4.23E+03
39	1	300	0	1.85	3.28	118.5	98.5	112.2	6.3	2.61E-03	8.55E+03
40	1	300	0	1.85	3.28	105.8	85.8	85.1	20.7	8.04E-05	2.64E+02
41	1	300	0	1.85	3.28	90.4	70.4	84.5	5.9	4.64E-05	1.52E+02
42	1	128	0	1.85	1.40	76.7	56.7	72.5	4.2	6.82E-05	9.53E+01

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
9	2528	14.9	27.6	108.4	88.4	115.6	7.5	6.1	1.96E-05	1.74E-03	4.80E+04
32	9018	48.0	88.9	106.4	86.4	88.3	17.7	3.8	9.34E-05	8.07E-03	7.18E+05

*!
*TIM 15:10:00 53 45.20 130 35.40
*TRA 254 17 45 54 2987 9.121 227.175 0.983 9.275
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
45	1	300	0	1.85	3.14	54.0	34.0	63.0	-9.0	4.16E-02	1.31E+05
46	1	300	0	1.85	3.14	81.6	61.6	76.9	4.7	1.18E-04	3.71E+02
47	1	300	0	1.85	3.14	97.8	77.8	89.7	8.1	3.45E-05	1.08E+02
48	1	300	0	1.85	3.14	112.2	92.2	107.4	4.8	1.08E-04	3.40E+02
49	1	300	0	1.85	3.14	122.5	102.5	116.9	5.5	1.24E-03	3.90E+03
50	1	300	0	1.85	3.14	128.8	108.8	101.7	27.1	3.82E-03	1.20E+04
51	1	300	0	1.85	3.14	128.6	108.6	102.3	26.3	1.92E-03	6.03E+03
52	1	300	0	1.85	3.14	128.9	108.9	123.9	5.0	2.83E-03	8.90E+03
53	1	300	0	1.85	3.14	121.8	101.8	117.7	4.1	9.01E-04	2.83E+03
54	1	287	0	1.85	3.01	93.9	73.9	85.9	8.0	2.38E-04	7.16E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
10	2987	16.9	31.3	107.1	87.1	73.0	-3.7	2.9	6.09E-05	5.30E-03	1.66E+05

42	12005	64.9	120.2	106.5	86.5	85.4	13.7	3.7	8.49E-05	7.35E-03	8.83E+05

*!
*TIM 16:20:00 53 37.40 130 47.00
*TRA 256 16 57 65 2641 8.814 47.101 0.850 10.370
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
57	1	300	0	1.85	3.43	87.1	67.1	99.1	-12.0	1.53E-04	5.24E+02
58	1	300	0	1.85	3.43	127.2	107.2	117.6	9.6	7.56E-04	2.60E+03
59	1	300	7	1.85	3.43	132.2	112.2	116.2	16.0	9.96E-03	3.42E+04
60	1	300	0	1.85	3.43	141.8	121.8	127.1	14.8	2.35E-04	8.08E+02
61	1	300	0	1.85	3.43	124.9	104.9	100.5	24.4	7.16E-03	2.46E+04
62	1	300	0	1.85	3.43	116.4	96.4	89.8	26.6	1.29E-02	4.42E+04
63	1	300	0	1.85	3.43	105.1	85.1	95.5	9.6	1.69E-03	5.80E+03
64	1	300	0	1.85	3.43	95.3	75.3	77.5	17.9	6.90E-03	2.37E+04
65	1	241	0	1.85	2.76	81.0	61.0	73.3	7.8	2.76E-03	7.60E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
9	2641	16.3	30.2	113.0	93.0	96.0	20.1	9.3	5.12E-05	4.76E-03	1.44E+05
51	14646	81.2	150.5	107.9	87.9	86.9	14.6	4.5	7.77E-05	6.83E-03	1.03E+06

*!
*TIM 17:20:00 53 42.20 130 35.80
*TRA 258 15 68 77 3000 9.457 228.228 1.050 9.007
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
68	1	300	0	1.85	3.24	66.7	46.7	52.6	14.0	5.29E-03	1.72E+04
69	1	300	0	1.85	3.24	85.5	65.5	60.4	25.1	8.89E-03	2.88E+04
70	1	300	0	1.85	3.24	98.4	78.4	48.0	50.4	5.43E-02	1.76E+05
71	1	300	0	1.85	3.24	109.7	89.7	72.5	37.3	4.75E-03	1.54E+04
72	1	300	0	1.85	3.24	123.4	103.4	105.7	17.7	5.77E-04	1.87E+03
73	1	300	0	1.85	3.24	144.2	124.2	124.2	20.1	4.48E-04	1.45E+03
74	1	300	0	1.85	3.24	126.1	106.1	115.3	10.8	4.21E-03	1.37E+04
75	1	300	0	1.85	3.24	151.5	131.5	141.5	10.1	1.52E-03	4.93E+03
76	1	300	0	1.85	3.24	132.4	112.4	118.9	13.4	1.31E-03	4.25E+03
77	1	300	0	1.85	3.24	86.2	66.2	77.7	8.5	3.62E-04	1.17E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
10	3000	17.5	32.4	112.4	92.4	58.4	40.6	4.9	8.84E-05	8.17E-03	2.65E+05
61	17646	98.8	182.9	108.7	88.7	81.0	19.9	4.5	7.97E-05	7.07E-03	1.29E+06

*!
*TIM 18:30:00 53 34.90 130 47.00
*TRA 260 14 80 87 2175 7.246 47.449 0.750 9.661
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
80	1	300	0	1.85	3.43	90.9	70.9	80.4	10.5	1.12E-03	3.85E+03
81	1	300	0	1.85	3.43	145.9	125.9	126.3	19.6	1.76E-03	6.03E+03
82	1	300	0	1.85	3.43	153.6	133.6	132.8	20.9	9.58E-04	3.29E+03

83	1	300	0	1.85	3.43	112.0	92.0	101.2	10.8	5.05E-04	1.73E+03
84	1	300	0	1.85	3.43	98.4	78.4	84.1	14.3	6.94E-04	2.38E+03
85	1	300	0	1.85	3.43	88.3	68.3	65.1	23.2	3.29E-03	1.13E+04
86	1	300	0	1.85	3.43	77.9	57.9	56.6	21.3	3.65E-03	1.25E+04
87	1	75	0	1.85	0.86	74.8	54.8	46.5	28.3	3.58E-03	3.07E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2175	13.4	24.9	108.4	88.4	78.5	20.3	8.4	2.01E-05	1.78E-03	4.41E+04
69	19821	112.2	207.8	108.6	88.6	81.0	19.9	4.7	7.26E-05	6.43E-03	1.34E+06

*!
*TIM 19:30:00 53 37.60 130 39.90
*TRA 262 H39 89 97 2407 5.431 227.061 0.583 9.311
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
89	1	300	0	1.85	2.32	69.7	49.7	53.1	16.6	1.40E-02	3.25E+04
90	1	221	0	1.85	1.71	72.2	52.2	52.1	20.1	4.18E-03	7.15E+03
91	1	300	0	1.85	2.32	72.0	52.0	62.1	9.9	2.71E-03	6.29E+03
92	1	300	0	1.85	2.32	81.9	61.9	73.4	8.5	9.41E-04	2.19E+03
93	1	300	2	1.85	2.32	99.7	79.7	93.6	6.1	9.43E-03	2.19E+04
94	1	300	6	1.85	2.32	158.2	138.2	145.3	12.9	1.30E-02	3.01E+04
95	1	300	0	1.85	2.32	163.8	143.8	138.2	25.6	2.77E-03	6.42E+03
96	1	286	0	1.85	2.21	110.2	90.2	107.3	2.8	1.74E-03	3.84E+03
97	1	300	0	1.85	2.32	96.2	76.2	85.1	11.0	5.85E-04	1.36E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2607	10.9	20.2	103.5	83.5	93.9	13.2	4.2	6.63E-05	5.54E-03	1.12E+05
78	22428	123.1	227.9	108.2	88.2	82.0	19.4	4.6	7.21E-05	6.35E-03	1.45E+06

*!----------
*TIM 23:03:00 53 50.08 130 57.71 ! Butterworth Edge
*TRA 270 30 129 131 886 2.437 49.896 0.300 8.124
*WID 1.0
*ZER
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
129	1	300	0	1.85	2.83	60.4	40.4	56.0	4.4	6.80E-05	1.93E+02
130	1	300	0	1.85	2.83	84.9	64.9	72.8	12.1	2.68E-04	7.58E+02
131	1	286	0	1.85	2.70	83.3	63.3	68.1	15.2	5.01E-04	1.35E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	886	4.5	8.4	76.1	56.1	68.6	13.3	3.0	4.91E-06	2.75E-04	2.30E+03
3	886	4.5	8.4	76.1	56.1	68.6	13.3	3.0	4.91E-06	2.75E-04	2.30E+03

*!
*TIM 23:28:00 53 52.73 130 54.91
*TRA 272 31 134 136 822 2.395 229.978 0.267 8.980
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
134	1	300	0	1.85	3.00	77.7	57.7	59.5	18.2	2.58E-04	7.74E+02
135	1	300	0	1.85	3.00	82.8	62.8	78.3	4.5	5.74E-04	1.72E+03
136	1	222	0	1.85	2.22	77.4	57.4	72.3	5.1	8.71E-04	1.93E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	822	4.4	8.2	79.5	59.5	72.4	7.2	2.8	9.06E-06	5.39E-04	4.43E+03
6	1708	8.9	16.6	77.8	57.8	71.1	9.3	2.9	7.03E-06	4.06E-04	6.73E+03

*!
*TIM 23:50:00 53 52.12 130 58.70
*TRA 274 32 139 142 1093 3.145 50.039 0.400 7.863
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
139	1	300	0	1.85	2.96	76.3	56.3	74.7	1.6	7.90E-04	2.34E+03
140	1	300	0	1.85	2.96	79.6	59.6	68.7	10.9	4.09E-04	1.21E+03
141	1	300	0	1.85	2.96	75.2	55.2	67.5	7.7	2.92E-04	8.64E+02
142	1	193	0	1.85	1.90	70.0	50.0	61.5	8.5	5.15E-04	9.81E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	1093	5.8	10.8	75.8	55.8	69.8	5.9	2.5	8.97E-06	5.00E-04	5.39E+03
10	2801	14.8	27.4	77.0	57.0	70.5	7.8	2.7	7.78E-06	4.43E-04	1.21E+04

*!
*DAT 07-DEC-85
*TIM 00:27:00 53 55.76 130 56.39
*TRA 276 34 146 149 1200 3.308 230.598 0.383 8.630
*WID 2.34
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
146	1	300	0	4.33	6.64	58.6	38.6	51.1	7.6	5.66E-04	3.76E+03
147	1	300	0	4.33	6.64	68.2	48.2	62.6	5.6	2.13E-04	1.41E+03
148	1	300	0	4.33	6.64	70.3	50.3	63.2	7.0	6.92E-04	4.59E+03
149	1	300	0	4.33	6.64	67.8	47.8	57.1	10.7	5.09E-04	3.38E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
4	1200	6.1	26.5	66.2	46.2	58.1	8.0	3.2	1.07E-05	4.95E-04	1.31E+04
14	4001	20.9	53.9	71.7	51.7	64.1	7.9	2.9	9.06E-06	4.69E-04	2.53E+04

*!
*TIM 01:03:00 53 55.66 131 1.79
*TRA 278 36 152 154 873 2.601 50.913 0.317 8.214
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
152	1	300	0	4.33	7.17	67.6	47.6	61.0	6.6	3.78E-05	2.71E+02
153	1	300	0	4.33	7.17	68.1	48.1	65.5	2.6	9.36E-05	6.71E+02
154	1	273	0	4.33	6.53	49.2	29.2	39.6	9.6	8.61E-05	5.62E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM^2	M	M	M	M	KM	KG/M^3	KG/M^2	KG
3	873	4.8	20.9	62.0	42.0	55.0	5.9	2.8	1.71E-06	7.21E-05	1.50E+03
17	4874	25.7	74.8	69.0	49.0	63.6	7.8	2.9	7.30E-06	3.58E-04	2.68E+04

*!
*TIM 01:51:00 54 1.80 130 59.33
*TRA 280 40 160 165 1581 4.463 231.467 0.533 8.367
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM^2	M	M	M	M	KG/M^2	KG
160	1	300	0	4.33	6.80	44.2	24.2	35.2	9.0	9.08E-06	6.17E+01
161	1	300	0	4.33	6.80	58.7	38.7	52.6	6.1	9.83E-06	6.68E+01
162	1	300	0	4.33	6.80	71.3	51.3	60.5	10.8	4.15E-05	2.82E+02
163	1	300	0	4.33	6.80	78.3	58.3	64.0	14.4	2.19E-04	1.49E+03
164	1	300	0	4.33	6.80	69.4	49.4	57.5	11.9	3.36E-04	2.29E+03
165	1	81	0	4.33	1.84	63.7	43.7	38.1	25.6	6.23E-05	1.14E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM^2	M	M	M	M	KM	KG/M^3	KG/M^2	KG
6	1581	8.3	35.8	64.4	44.4	59.0	12.9	6.2	2.71E-06	1.20E-04	4.30E+03
23	6455	34.0	110.6	67.5	47.5	62.9	8.5	3.4	5.91E-06	2.81E-04	3.11E+04

*!
*TIM 02:39:00 54 1.36 131 5.57
*TRA 282 42 169 174 1800 5.247 51.451 0.517 10.156
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM^2	M	M	M	M	KG/M^2	KG
169	1	300	0	4.33	7.02	60.2	40.2	48.1	12.1	1.09E-04	7.65E+02
170	1	300	0	4.33	7.02	77.0	57.0	71.1	5.9	1.69E-04	1.19E+03
171	1	300	0	4.33	7.02	83.6	63.6	73.7	9.9	7.46E-05	5.23E+02
172	1	300	0	4.33	7.02	78.1	58.1	65.4	12.6	8.14E-05	5.71E+02
173	1	300	0	4.33	7.02	72.3	52.3	65.3	7.0	2.71E-05	1.90E+02
174	1	300	0	4.33	7.02	68.0	48.0	62.1	5.9	3.26E-05	2.29E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM^2	M	M	M	M	KM	KG/M^3	KG/M^2	KG
6	1800	9.7	42.1	73.2	53.2	64.6	9.1	3.5	1.55E-06	8.24E-05	3.47E+03
29	8255	43.7	152.7	69.1	49.1	63.1	8.5	3.4	4.61E-06	2.26E-04	3.45E+04

*TIM 03:30:00 54 6.97 130 58.82
*TRA 284 44 178 183 1541 4.466 231.503 0.517 8.644
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM^2	M	M	M	M	KG/M^2	KG
178	1	300	0	4.33	6.98	67.0	47.0	55.5	11.5	1.23E-04	8.59E+02
179	1	300	0	4.33	6.98	76.8	56.8	71.1	5.7	4.31E-05	3.01E+02
180	1	300	0	4.33	6.98	90.6	70.6	73.3	17.2	2.56E-04	1.79E+03
181	1	300	0	4.33	6.98	84.9	64.9	78.3	6.6	2.04E-04	1.42E+03
182	1	300	0	4.33	6.98	74.1	54.1	65.5	8.6	2.81E-04	1.96E+03
183	1	41	0	4.33	0.95	68.9	48.9	56.3	12.6	1.05E-04	1.00E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
6	1541	8.3	35.8	78.4	58.4	69.3	10.9	4.9	3.07E-06	1.79E-04	6.43E+03
35	9796	52.0	188.6	70.8	50.8	64.1	8.9	3.6	4.27E-06	2.17E-04	4.10E+04

*!
*TIM 04:18:00 54 6.38 131 5.37
*TRA 286 46 187 191 1386 4.210 51.857 0.467 9.021
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
187	1	300	0	4.33	7.31	28.0	12.4	49.3	-21.3	1.33E-05	9.71E+01
188	1	300	0	4.33	7.31	92.2	72.2	79.8	12.4	4.04E-04	2.95E+03
189	1	300	0	4.33	7.31	96.9	76.9	85.3	11.6	6.00E-04	4.39E+03
190	1	300	0	4.33	7.31	73.5	53.5	70.6	2.9	3.66E-04	2.68E+03
191	1	186	0	4.33	4.53	42.8	22.8	35.2	7.7	1.30E-02	5.88E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
5	1386	7.8	33.8	68.7	49.6	41.7	7.9	6.8	4.11E-05	2.04E-03	6.89E+04
40	11182	59.8	222.4	70.5	50.7	50.0	8.3	5.6	9.76E-06	4.94E-04	1.10E+05

*!
*TIM 05:00:00 54 11.49 130 59.56
*TRA 288 48 195 199 1385 4.216 231.927 0.483 8.723
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
195	1	300	0	4.33	7.33	50.2	30.2	39.1	11.0	3.72E-04	2.73E+03
196	1	300	0	4.33	7.33	78.2	58.2	61.8	16.3	9.11E-05	6.68E+02
197	1	300	0	4.33	7.33	89.0	69.0	74.9	14.1	5.43E-04	3.98E+03
198	1	300	0	4.33	7.33	97.1	77.1	86.1	10.9	4.54E-04	3.33E+03
199	1	185	0	4.33	4.52	64.2	44.2	41.0	23.1	1.77E-04	8.01E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
5	1385	7.8	33.8	76.7	56.7	66.5	13.2	4.0	6.00E-06	3.40E-04	1.15E+04
45	12567	67.6	256.2	71.3	51.5	51.6	8.7	5.5	9.21E-06	4.74E-04	1.21E+05

*!
*TIM 05:47:00 54 11.24 131 5.41
*TRA 290 50 203 207 1201 3.704 52.002 0.433 8.547
*WID 1.0
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
203	1	1	0	1.85	0.01	15.0	0.0	0.0	0.0	0.00E+00	0.00E+00
204	1	300	0	1.85	3.17	43.5	25.1	60.3	-16.9	7.02E-05	2.23E+02
205	1	300	0	1.85	3.17	84.0	64.0	70.1	13.9	1.42E-04	4.50E+02
206	1	300	0	1.85	3.17	98.9	78.9	93.7	5.2	3.36E-04	1.07E+03
207	1	300	0	1.85	3.17	91.6	71.6	76.3	15.3	1.08E-04	3.44E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG

5	1201	6.9	12.7	79.5	59.9	82.2	6.4	3.8	2.74E-06	1.64E-04	2.08E+03
50	13768	74.4	268.9	71.7	51.9	52.1	8.7	5.5	8.86E-06	4.59E-04	1.23E+05

*!
*TIM 06:26:00 54 14.77 131 0.31
*TRA 292 51 210 214 1351 3.961 232.154 0.400 9.902
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
210	1	151	0	1.85	1.52	85.3	65.3	71.0	14.4	2.95E-04	4.48E+02
211	1	300	0	1.85	3.02	90.2	70.2	76.8	13.4	3.05E-04	9.21E+02
212	1	300	0	1.85	3.02	107.6	87.6	77.2	30.3	2.61E-04	7.87E+02
213	1	300	0	1.85	3.02	93.5	73.5	63.6	29.9	3.61E-04	1.09E+03
214	1	300	0	1.85	3.02	66.3	46.3	56.3	9.9	2.46E-04	7.41E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
5	1351	7.3	13.6	88.9	68.9	68.8	20.7	3.6	4.26E-06	2.93E-04	3.99E+03
55	15119	81.8	282.5	72.5	52.7	52.6	9.1	5.4	8.57E-06	4.51E-04	1.27E+05

*!
*TIM 07:03:00 54 13.76 131 5.19
*TRA 294 52 217 224 1886 5.917 51.791 0.700 8.453
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
217	1	300	0	1.85	3.23	19.5	0.1	0.0	0.0	0.00E+00	0.00E+00
218	1	300	0	1.85	3.23	28.6	11.0	32.9	-4.3	1.21E-04	3.91E+02
219	1	300	0	1.85	3.23	60.1	40.1	52.6	7.5	1.81E-04	5.85E+02
220	1	300	0	1.85	3.23	94.0	74.0	75.7	18.3	2.57E-04	8.30E+02
221	1	300	0	1.85	3.23	100.8	80.8	63.1	37.7	3.64E-04	1.17E+03
222	1	300	0	1.85	3.23	84.2	64.2	70.1	14.1	1.15E-03	3.72E+03
226	1	86	310	1.85	0.93	128.4	108.4	115.9	12.5	3.22E-03	2.98E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
7	1886	11.0	20.3	67.4	47.9	81.2	15.7	8.8	9.95E-06	4.77E-04	9.68E+03
62	17005	92.7	302.8	72.2	52.4	54.6	9.5	5.6	8.65E-06	4.53E-04	1.37E+05

*!
*TIM 07:53:00 54 18.59 130 57.28
*TRA 296 53 227 233 1831 5.258 231.821 0.533 9.859
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
227	1	86	0	1.85	0.85	115.9	95.9	95.9	19.9	7.88E-04	6.68E+02
228	1	300	0	1.85	2.95	99.7	79.7	95.1	4.6	1.61E-03	4.76E+03
229	1	300	8	1.85	2.95	94.0	74.0	111.1	-17.1	2.04E-03	6.03E+03
230	1	300	0	1.85	2.95	123.3	103.3	101.7	21.6	5.96E-04	1.76E+03
231	1	300	0	1.85	2.95	111.2	91.2	99.8	11.4	3.09E-04	9.12E+02
232	1	300	0	1.85	2.95	111.3	91.3	99.8	11.5	2.47E-03	7.30E+03
233	1	245	0	1.85	2.41	65.1	45.1	65.2	-0.1	5.01E-04	1.21E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM^2	M	M	M	M	KM	KG/M^3	KG/M^2	KG
7	1831	9.7	18.0	102.6	82.6	100.0	2.9	4.6	1.52E-05	1.25E-03	2.26E+04
69	18836	102.5	320.8	73.9	54.1	61.1	8.6	5.5	9.21E-06	4.98E-04	1.60E+05

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*!
*TIM 08:34:00  54 16.33 131  4.84
*TRA    298     54    236     241   1775   4.924  52.018   0.617   7.984
*LOU
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PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM^2	M	M	M	M	KG/M^2	KG
236	1	300	0	1.85	2.85	53.1	33.1	63.1	-9.9	5.20E-04	1.48E+03
237	1	300	0	1.85	2.85	104.7	84.7	90.9	13.8	9.00E-04	2.57E+03
238	1	300	0	1.85	2.85	95.6	75.6	90.0	5.6	2.06E-04	5.89E+02
239	1	300	0	1.85	2.85	68.5	48.5	48.6	20.0	2.62E-05	7.48E+01
240	1	300	0	1.85	2.85	58.1	38.1	75.8	-17.7	8.43E-06	2.41E+01
241	1	275	0	1.85	2.62	114.5	94.5	107.3	7.2	9.75E-05	2.55E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM^2	M	M	M	M	KM	KG/M^3	KG/M^2	KG
6	1775	9.1	16.9	82.0	62.0	82.7	5.4	2.4	4.77E-06	2.96E-04	5.00E+03
75	20611	111.6	337.7	74.3	54.4	61.7	8.5	5.4	8.96E-06	4.88E-04	1.65E+05

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*!
*TIM 09:20:00  54 20.63 130 58.05
*TRA    300     55    244     249   1800   5.149 237.319   0.600   8.581
*LOU
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PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM^2	M	M	M	M	KG/M^2	KG
244	1	300	0	1.85	2.94	85.1	65.1	59.6	25.5	3.56E-05	1.05E+02
245	1	300	0	1.85	2.94	95.4	75.4	79.0	16.4	5.43E-05	1.60E+02
246	1	300	0	1.85	2.94	57.6	37.6	45.5	12.1	2.02E-03	5.94E+03
247	1	300	0	1.85	2.94	81.0	61.0	89.1	-8.1	1.89E-04	5.57E+02
248	1	300	0	1.85	2.94	105.6	85.6	81.3	24.3	8.50E-04	2.50E+03
249	1	300	0	1.85	2.94	72.3	52.3	80.1	-7.8	1.07E-03	3.16E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM^2	M	M	M	M	KM	KG/M^3	KG/M^2	KG
6	1800	9.5	17.7	82.8	62.8	64.0	8.8	5.8	1.12E-05	7.03E-04	1.24E+04
81	22411	121.1	355.4	74.7	54.9	61.9	8.5	5.4	9.09E-06	4.99E-04	1.77E+05

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*!-------------------------------------------------------------------------
*! TIM 12:30:00  54 24.80 131 19.60
*! BON
*DAT 08-DEC-85
*IEI 85E022.INT
*TIM 12:52:00  53 52.70 130 49.80 ! Browning Entr. - long 13-29 (vessel avoid)
*TRA    305     29      1       7   1840   4.904 229.269   0.550   8.917
*ZER
*FIR 1
*LZE 1
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PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM^2	M	M	M	M	KG/M^2	KG
1	1	57	1	1.85	0.52	196.0	176.0	0.0	0.0	0.00E+00	0.00E+00

*LOU 7

2	1	300	1	1.85	2.74	72.9	52.9	60.1	12.9	7.42E-06	2.04E+01
3	1	300	0	1.85	2.74	73.2	53.2	38.7	34.5	1.11E-05	3.04E+01
4	1	300	0	1.85	2.74	78.8	58.8	65.0	13.7	1.77E-04	4.85E+02
5	1	300	0	1.85	2.74	75.7	55.7	27.1	48.6	6.28E-03	1.72E+04
6	1	300	0	1.85	2.74	79.6	59.6	55.8	23.8	1.15E-04	3.14E+02
7	1	283	0	1.85	2.59	75.8	55.8	34.1	41.7	4.15E-03	1.07E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	1840	9.1	16.8	79.7	59.7	30.7	45.1	6.5	2.87E-05	1.71E-03	2.88E+04
7	1840	9.1	16.8	79.7	59.7	30.7	45.1	6.5	2.87E-05	1.71E-03	2.88E+04

*!
*TIM 13:36:00 53 48.50 130 56.70 ! Vessel avoidance test
*TRA 307 28 10 17 2190 6.004 56.659 0.767 7.831
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
10	1	300	0	1.85	2.82	74.3	54.3	64.3	10.0	3.83E-03	1.08E+04
11	1	300	0	1.85	2.82	81.5	61.5	64.0	17.5	1.62E-04	4.58E+02
12	1	300	0	1.85	2.82	81.9	61.9	58.7	23.2	1.79E-04	5.04E+02
13	1	300	0	1.85	2.82	74.6	54.6	31.7	42.9	1.91E-05	5.38E+01
14	1	300	0	1.85	2.82	76.4	56.4	61.5	15.0	1.13E-04	3.19E+02
15	1	300	0	1.85	2.82	83.2	63.2	72.5	10.8	1.12E-04	3.16E+02
16	1	300	0	1.85	2.82	80.2	60.2	48.1	32.1	8.60E-05	2.43E+02
17	1	90	0	1.85	0.85	66.9	46.9	37.5	29.4	5.50E-05	4.66E+01

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2190	11.1	20.6	78.4	58.4	63.6	11.6	1.5	1.06E-05	6.18E-04	1.27E+04
15	4030	20.2	37.4	79.0	59.0	40.8	34.9	5.0	1.88E-05	1.11E-03	4.15E+04

*!
*TIM 14:29:00 53 51.30 130 47.40 ! Vessel avoidance test
*TRA 309 27 20 27 2131 5.570 229.732 0.700 7.957
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
20	1	300	0	1.85	2.69	56.2	36.2	58.5	-2.3	1.39E-03	3.74E+03
21	1	300	0	1.85	2.69	79.7	59.7	30.7	49.1	1.92E-03	5.17E+03
22	1	300	0	1.85	2.69	82.5	62.5	66.8	15.8	6.32E-01	1.70E+06
23	1	300	0	1.85	2.69	72.9	52.9	49.9	23.0	2.14E-04	5.76E+02
24	1	300	0	1.85	2.69	83.0	63.0	40.7	42.3	3.98E-04	1.07E+03
25	1	300	0	1.85	2.69	84.6	64.6	71.8	12.8	1.80E-04	4.84E+02
26	1	300	0	1.85	2.69	81.8	61.8	64.4	17.4	2.30E-03	6.18E+03
27	1	31	0	1.85	0.28	77.1	57.1	31.4	45.7	1.03E-05	2.85E+00

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2131	10.3	19.1	77.3	57.3	66.6	15.9	3.6	1.57E-03	8.99E-02	1.72E+06
23	6161	30.5	56.5	78.4	58.4	66.0	16.3	3.7	5.33E-04	3.11E-02	1.76E+06

*!

*TIM 16:12:00 53 49.90 130 45.40 ! Vessel avoidance test
*TRA 313 25 40 48 2100 6.477 228.401 0.933 6.939
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
40	1	300	0	1.85	3.17	76.4	56.4	36.4	40.0	4.46E-05	1.42E+02
41	1	300	0	1.85	3.17	91.2	71.2	61.3	29.8	6.70E-05	2.13E+02
42	1	300	0	1.85	3.17	98.5	78.5	90.6	7.9	8.85E-02	2.81E+05
43	1	300	0	1.85	3.17	107.0	87.0	87.3	19.8	3.70E-01	1.17E+06
44	1	300	0	1.85	3.17	112.1	92.1	107.3	4.8	1.10E-02	3.51E+04
45	1	300	0	1.85	3.17	99.6	79.6	94.8	4.8	7.57E-03	2.40E+04
48	1	300	0	1.85	3.17	72.0	52.0	37.0	35.0	1.27E-04	4.02E+02

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
7	2100	12.0	22.2	93.8	73.8	88.4	17.0	5.8	9.23E-04	6.81E-02	1.51E+06
30	8261	42.5	78.7	82.7	62.7	76.4	16.6	4.6	6.63E-04	4.16E-02	3.27E+06

*!
*TIM 17:15:00 53 45.10 130 52.20 ! Vessel avoidance test
*TRA 315 24 51 59 2480 6.501 49.758 0.833 7.802
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
51	1	300	0	1.85	2.70	66.0	46.0	60.9	5.0	7.35E-04	1.98E+03
52	1	300	0	1.85	2.70	87.3	67.3	81.8	5.5	8.83E-04	2.38E+03
53	1	300	0	1.85	2.70	97.5	77.5	85.2	12.2	2.63E-03	7.10E+03
54	1	300	0	1.85	2.70	106.2	86.2	95.6	10.6	5.78E-03	1.56E+04
55	1	300	0	1.85	2.70	121.1	101.1	48.6	72.4	3.48E-01	9.39E+05
56	1	300	0	1.85	2.70	99.4	79.4	46.9	52.5	2.18E-01	5.87E+05
57	1	300	0	1.85	2.70	93.3	73.3	45.6	47.7	7.12E-01	1.92E+06
58	1	300	0	1.85	2.70	80.3	60.3	72.8	7.5	1.82E-03	4.92E+03
59	1	80	0	1.85	0.72	68.9	48.9	57.9	11.0	3.02E-01	2.18E+05

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
9	2480	12.0	22.3	93.1	73.1	47.6	52.2	8.6	2.27E-03	1.66E-01	3.69E+06
39	10741	54.6	101.0	85.0	65.0	61.1	35.5	6.7	1.06E-03	6.90E-02	6.97E+06

*!
*TIM 18:16:00 53 48.40 130 42.60 ! Vessel avoidance test
*TRA 317 23 62 70 2675 6.949 230.714 0.950 7.315
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
62	1	300	0	1.85	2.67	93.2	73.2	75.1	18.0	1.55E-03	4.14E+03
63	1	300	0	1.85	2.67	101.2	81.2	77.5	23.7	3.67E-03	9.82E+03
64	1	300	0	1.85	2.67	106.0	86.0	70.4	35.6	1.57E-02	4.20E+04
65	1	300	0	1.85	2.67	110.3	90.3	83.1	27.1	1.14E-02	3.05E+04
66	1	300	0	1.85	2.67	103.9	83.9	78.4	25.5	3.29E-02	8.80E+04
67	1	300	0	1.85	2.67	107.6	87.6	86.1	21.5	3.80E-03	1.01E+04
68	1	300	0	1.85	2.67	102.3	82.3	68.2	34.2	1.91E-02	5.10E+04
69	1	300	0	1.85	2.67	87.8	67.8	66.6	21.2	4.08E-03	1.09E+04
70	1	275	0	1.85	2.45	57.1	37.1	37.7	19.4	8.35E-02	2.05E+05

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2675	12.9	23.8	97.0	77.0	58.2	24.5	9.0	2.46E-04	1.89E-02	4.51E+05
48	13416	67.4	124.9	87.3	67.3	61.0	34.8	6.9	8.83E-04	5.94E-02	7.42E+06

*!
*TIM 19:19:00 53 43.50 130 50.30 ! Vessel avoidance test
*TRA 319 22 73 81 2632 7.143 48.855 0.883 8.087
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
73	1	300	0	1.85	2.79	54.4	34.4	44.6	9.8	1.72E-03	4.81E+03
74	1	300	0	1.85	2.79	86.1	66.1	66.9	19.2	7.99E-03	2.23E+04
75	1	300	0	1.85	2.79	104.6	84.6	87.1	17.5	2.54E-03	7.08E+03
76	1	300	0	1.85	2.79	119.8	99.8	102.0	17.8	7.29E-03	2.04E+04
77	1	300	0	1.85	2.79	117.6	97.6	103.2	14.5	3.93E-03	1.10E+04
78	1	300	0	1.85	2.79	115.4	95.4	90.0	25.4	1.24E-01	3.46E+05
79	1	300	0	1.85	2.79	110.4	90.4	86.1	24.3	1.21E-02	3.39E+04
80	1	300	0	1.85	2.79	102.2	82.2	70.4	31.8	4.16E-03	1.16E+04
81	1	232	0	1.85	2.16	90.1	70.1	68.4	21.7	2.07E-03	4.46E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2632	13.2	24.5	100.3	80.3	88.2	24.2	7.9	2.34E-04	1.88E-02	4.61E+05
57	16048	80.7	149.4	89.4	69.4	62.6	34.2	6.9	7.60E-04	5.28E-02	7.88E+06

*!
*TIM 20:21:00 53 47.70 130 40.00
*TRA 321 21 84 91 2266 6.679 228.795 0.733 9.108
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
84	1	300	0	1.85	3.03	88.6	68.6	72.4	16.2	3.57E-03	1.08E+04
85	1	300	0	1.85	3.03	112.0	92.0	59.4	52.5	5.91E-02	1.79E+05
86	1	300	0	1.85	3.03	115.4	95.4	94.2	21.2	1.18E-02	3.57E+04
87	1	300	0	1.85	3.03	129.0	109.0	107.8	21.2	4.75E-03	1.44E+04
88	1	300	0	1.85	3.03	126.9	106.9	106.1	20.8	6.36E-03	1.93E+04
89	1	300	0	1.85	3.03	121.4	101.4	102.8	18.6	5.85E-03	1.77E+04
90	1	300	0	1.85	3.03	108.2	88.2	99.6	8.5	2.90E-03	8.79E+03
91	1	166	0	1.85	1.68	86.4	66.4	84.1	2.3	1.06E-03	1.78E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2266	12.4	22.9	112.4	92.4	73.8	39.8	3.8	1.36E-04	1.26E-02	2.88E+05
65	18314	93.0	172.3	92.5	72.5	63.0	34.4	6.8	6.54E-04	4.74E-02	8.17E+06

*!
*TIM 21:15:00 53 42.20 130 47.80
*TRA 323 20 94 101 2214 6.727 46.860 0.717 9.387
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
94	1	300	0	1.85	3.13	80.5	60.5	76.2	4.3	6.63E-03	2.07E+04
95	1	300	0	1.85	3.13	110.5	90.5	98.2	12.3	8.69E-04	2.72E+03

96	1	300	0	1.85	3.13	124.7	104.7	114.4	10.4	7.19E-04	2.25E+03
97	1	300	0	1.85	3.13	135.5	115.5	99.6	35.8	1.03E-02	3.21E+04
98	1	300	0	1.85	3.13	134.2	114.2	108.5	25.7	1.36E-02	4.25E+04
99	1	300	0	1.85	3.13	124.7	104.7	111.1	13.6	2.11E-03	6.59E+03
100	1	300	0	1.85	3.13	112.3	92.3	95.4	16.9	5.64E-03	1.76E+04
101	1	114	0	1.85	1.19	109.0	89.0	88.0	21.0	6.53E-03	7.76E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
8	2214	12.5	23.1	117.0	97.0	98.3	22.2	6.8	5.91E-05	5.73E-03	1.32E+05
73	20528	105.5	195.3	95.4	75.4	63.5	34.2	6.8	5.64E-04	4.25E-02	8.30E+06

*!
*TIM 22:03:00 53 46.20 130 38.40
*TRA 325 19 104 112 2471 7.106 226.408 0.867 8.200
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
104	1	300	0	1.85	2.96	99.5	79.5	66.8	32.7	7.36E-02	2.18E+05
105	1	300	0	1.85	2.96	113.0	93.0	97.8	15.3	2.65E-03	7.85E+03
106	1	300	0	1.85	2.96	121.8	101.8	109.0	12.8	1.21E-03	3.57E+03
107	1	300	0	1.85	2.96	132.5	112.5	112.9	19.6	9.30E-03	2.75E+04
108	1	300	0	1.85	2.96	133.2	113.2	111.7	21.5	6.23E-03	1.84E+04
109	1	300	0	1.85	2.96	127.3	107.3	97.5	29.8	1.09E-02	3.23E+04
110	1	300	0	1.85	2.96	119.0	99.0	105.5	13.5	2.89E-04	8.56E+02
111	1	300	0	1.85	2.96	94.9	74.9	87.1	7.8	5.68E-04	1.68E+03
112	1	71	0	1.85	0.70	61.0	41.0	57.8	3.2	3.70E-05	2.59E+01

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2471	13.2	24.4	116.0	96.0	78.2	29.7	2.6	1.33E-04	1.27E-02	3.10E+05
82	22999	118.6	219.7	97.7	77.7	64.0	34.1	6.7	5.04E-04	3.92E-02	8.61E+06

*!
*TIM 23:03:00 53 40.20 130 46.90
*TRA 327 18 115 123 2698 8.079 47.096 0.817 9.893
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
115	1	300	0	1.85	3.08	83.1	63.1	73.9	9.2	7.17E-04	2.21E+03
116	1	300	0	1.85	3.08	122.8	102.8	100.7	22.1	1.02E-03	3.14E+03
117	1	300	0	1.85	3.08	125.9	105.9	103.8	22.2	4.83E-04	1.49E+03
118	1	300	0	1.85	3.08	128.9	108.9	114.7	14.2	6.21E-04	1.91E+03
119	1	300	0	1.85	3.08	128.3	108.3	110.0	18.3	5.12E-03	1.58E+04
120	1	300	0	1.85	3.08	123.4	103.4	108.7	14.7	2.58E-03	7.95E+03
121	1	300	0	1.85	3.08	113.2	93.2	96.3	16.8	7.54E-04	2.32E+03
122	1	300	0	1.85	3.08	100.7	80.7	81.3	19.4	9.16E-03	2.82E+04
123	1	298	0	1.85	3.06	85.3	65.3	69.7	15.6	2.94E-02	8.99E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2698	15.0	27.7	112.4	92.4	80.0	16.6	12.2	5.97E-05	5.52E-03	1.53E+05
91	25697	133.6	247.4	99.3	79.3	64.3	33.8	6.8	4.46E-04	3.54E-02	8.76E+06

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*!
*DAT 09-DEC-85
*IEI 85E023.INT
*TIM 00:00:00  53 45.10 130 35.50
*TRA    330     17      1       9   2596   9.078 226.922   1.033   8.785
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
      1    1  300    1  1.85   3.60  92.3  72.3  68.6  23.7 2.51E-01 9.02E+05
      2    1  300    0  1.85   3.60 109.5  89.5  97.7  11.8 4.09E-04 1.47E+03
      3    1  300    0  1.85   3.60 119.5  99.5 106.4  13.2 5.22E-03 1.88E+04
      4    1  300    0  1.85   3.60 127.0 107.0 107.7  19.3 3.77E-03 1.36E+04
      5    1  300    0  1.85   3.60 130.0 110.0 112.2  17.8 1.48E-03 5.31E+03
      6    1  300    0  1.85   3.60 127.8 107.8 111.2  16.7 7.31E-04 2.63E+03
      7    1  300    0  1.85   3.60 129.8 109.8 111.7  18.1 4.47E-04 1.61E+03
      8    1  300    0  1.85   3.60 113.4  93.4  97.2  16.1 1.19E-03 4.29E+03
      9    1  196    0  1.85   2.35  82.5  62.5  73.3   9.2 3.21E-03 7.53E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   9  2596  16.8  31.1 115.9  95.9  70.5  23.2   1.4 3.21E-04 3.08E-02 9.57E+05
 100 28293 150.4 278.6 101.2  81.2  64.9  32.7   6.2 4.30E-04 3.49E-02 9.72E+06

*!
*TIM 01:11:00  53 37.60 130 46.80
*TRA    332     16      12      21   2901   8.480  47.768   0.967   8.773
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
     12    1  300    0  1.85   3.01  94.7  74.7  76.8  17.9 1.36E-03 4.10E+03
     13    1  300    0  1.85   3.01 126.6 106.6 114.4  12.3 1.57E-03 4.73E+03
     14    1  300    0  1.85   3.01 127.8 107.8 117.7  10.1 1.88E-03 5.66E+03
     15    1  300    0  1.85   3.01 145.0 125.0 124.8  20.2 8.14E-04 2.45E+03
     16    1  300    0  1.85   3.01 126.3 106.3 108.0  18.3 1.02E-03 3.06E+03
     17    1  300    0  1.85   3.01 120.5 100.5 101.1  19.4 1.16E-03 3.49E+03
     18    1  300    0  1.85   3.01 109.9  89.9  88.5  21.4 1.98E-03 5.96E+03
     19    1  300    0  1.85   3.01 100.8  80.8  82.2  18.6 2.88E-03 8.65E+03
     20    1  300    0  1.85   3.01  92.0  72.0  72.4  19.6 5.51E-03 1.66E+04
     21    1  201    0  1.85   2.02  79.9  59.9  66.9  13.0 3.31E-02 6.66E+04

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
  10  2901  15.7  29.1 113.5  93.5  77.5  15.2  12.5 4.46E-05 4.17E-03 1.21E+05
 110 31194 166.1 307.7 102.3  82.3  65.1  32.5   6.3 3.88E-04 3.20E-02 9.84E+06

*!
*TIM 02:17:00  53 42.40 130 36.30
*TRA    334     15      24      34   3137   9.664 226.108   1.050   9.204
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
     24    1  300    0  1.85   3.17  74.4  54.4  57.6  16.7 1.19E-02 3.76E+04
     25    1  300    0  1.85   3.17  88.2  68.2  66.2  22.0 2.90E-02 9.19E+04
     26    1  300    0  1.85   3.17  99.0  79.0  74.7  24.3 1.24E-02 3.93E+04
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27	1	300	0	1.85	3.17	110.8	90.8	/0.0	40.9	2.54E-03	8.07E+03
28	1	300	0	1.85	3.17	124.6	104.6	99.7	24.9	1.06E-03	3.36E+03
29	1	300	0	1.85	3.17	141.1	121.1	118.2	22.8	8.13E-04	2.58E+03
30	1	300	0	1.85	3.17	128.4	108.4	123.3	5.1	3.29E-03	1.04E+04
31	1	300	0	1.85	3.17	148.9	128.9	124.9	24.0	7.80E-03	2.47E+04
32	1	300	0	1.85	3.17	126.7	106.7	112.1	14.6	1.64E-03	5.21E+03
33	1	300	0	1.85	3.17	80.8	60.8	43.8	37.1	1.17E-01	3.72E+05
34	1	137	0	1.85	1.45	65.6	45.6	60.8	4.8	9.34E-02	1.35E+05

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
11	3137	17.9	33.1	110.3	90.3	57.3	26.3	13.0	2.44E-04	2.20E-02	7.30E+05
121	34331	184.0	340.8	103.1	83.1	64.6	32.1	6.8	3.73E-04	3.10E-02	1.06E+07

*!
*TIM 03:28:00 53 34.70 130 47.20
*TRA 336 14 37 45 2446 7.314 46.874 0.817 8.956
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
37	1	300	6	1.85	3.08	83.7	63.7	44.5	39.2	2.11E+00	6.50E+06
38	1	300	0	1.85	3.08	124.9	104.9	114.3	10.6	2.83E-03	8.69E+03
39	1	300	0	1.85	3.08	163.2	143.2	142.9	20.3	9.79E-03	3.01E+04
40	1	300	0	1.85	3.08	117.4	97.4	104.9	12.5	4.23E-03	1.30E+04
41	1	300	0	1.85	3.08	108.4	88.4	90.0	18.4	2.00E-03	6.16E+03
42	1	300	0	1.85	3.08	85.9	65.9	70.8	15.1	1.84E-03	5.67E+03
43	1	300	0	1.85	3.08	76.8	56.8	61.6	15.1	9.74E-03	3.00E+04
44	1	300	0	1.85	3.08	71.2	51.2	60.3	10.9	7.67E-03	2.36E+04
45	1	46	0	1.85	0.47	63.9	43.9	57.5	6.4	1.94E-03	9.17E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
9	2446	13.5	25.1	103.2	83.2	45.4	38.8	1.0	3.17E-03	2.64E-01	6.61E+06
130	36777	197.6	365.9	103.1	83.1	57.2	34.6	4.5	5.65E-04	4.70E-02	1.72E+07

*!
*TIM 04:31:00 53 37.70 130 39.70
*TRA 338 13 49 55 1933 5.388 226.630 0.650 8.289
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
49	1	300	0	1.85	2.87	67.6	47.6	55.1	12.4	6.98E-03	2.00E+04
50	1	300	0	1.85	2.87	75.6	55.6	69.2	6.4	1.95E-03	5.59E+03
51	1	300	0	1.85	2.87	93.8	73.8	64.0	29.8	6.32E-03	1.81E+04
52	1	300	0	1.85	2.87	141.9	121.9	135.6	6.3	7.16E-03	2.05E+04
53	1	300	0	1.85	2.87	159.6	139.6	150.7	8.9	5.41E-03	1.55E+04
54	1	300	0	1.85	2.87	139.4	119.4	120.4	19.0	2.52E-03	7.23E+03
55	1	133	0	1.85	1.27	96.2	76.2	74.8	21.3	2.06E-03	2.62E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
7	1933	10.0	18.5	111.8	91.8	98.6	14.4	4.5	5.28E-05	4.85E-03	8.97E+04
137	38710	207.5	384.4	103.5	83.5	57.4	34.5	4.5	5.38E-04	4.49E-02	1.73E+07

```
*!-------------------------------------------------------------------------------
*TIM 05:41:00  53 30.50 130 42.70              !  SW Bonilla - coverage 2
*TRA    340    N37     61      66    1642   4.346 298.897   0.533   8.148
*WID 1.28
*ZER
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
     61    1  300    0  2.37   3.49 152.4 132.4 143.8   8.6 6.59E-03 2.30E+04
     62    1  300    0  2.37   3.49 138.1 118.1 129.1   8.9 7.98E-03 2.78E+04
     63    1  300    0  2.37   3.49 142.5 122.5 123.7  18.8 1.63E-02 5.68E+04
     64    1  300    0  2.37   3.49 125.5 105.5 119.7   5.7 1.46E-02 5.07E+04
     65    1  300    0  2.37   3.49  89.7  69.7  77.0  12.7 7.39E-04 2.58E+03
     66    1  142    0  2.37   1.65  81.5  61.5  75.2   6.3 5.86E-04 9.66E+02

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM  KG/M3    KG/M2        KG
   6  1642   8.0  19.1 125.5 105.5 125.2  11.4   3.5 8.04E-05 8.49E-03 1.62E+05
   6  1642   8.0  19.1 125.5 105.5 125.2  11.4   3.5 8.04E-05 8.49E-03 1.62E+05

*!
*TIM 06:22:00  53 31.80 130 50.60
*TRA    342    N35     69      74    1643   4.164 126.895   0.550   7.571
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
     69    1  300    0  2.37   3.34  76.7  56.7  71.4   5.2 6.00E-04 2.00E+03
     70    1  300    0  2.37   3.34  82.1  62.1  78.0   4.1 3.13E-03 1.04E+04
     71    1  300    0  2.37   3.34  90.4  70.4  85.1   5.3 2.00E-03 6.67E+03
     72    1  300    0  2.37   3.34 109.7  89.7  99.3  10.4 2.63E-03 8.77E+03
     73    1  300    0  2.37   3.34 148.9 128.9 127.7  21.2 1.28E-02 4.26E+04
     74    1  143    0  2.37   1.59 161.2 141.2 139.6  21.6 5.43E-03 8.64E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM  KG/M3    KG/M2        KG
   6  1643   7.7  18.3 106.7  86.7 114.3  16.1   5.4 4.99E-05 4.33E-03 7.92E+04
  12  3285  15.8  37.4 116.3  96.3 121.6  12.9   4.1 6.70E-05 6.45E-03 2.41E+05

*!
*TIM 07:05:00  53 28.60 130 47.00
*TRA    344    N33     77      81    1376   3.894 304.405   0.450   8.652
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
     77    1  300    0  2.37   3.73 129.9 109.9 115.3  14.6 1.00E-02 3.73E+04
     78    1  300    0  2.37   3.73 102.5  82.5  97.4   5.1 2.49E-03 9.27E+03
     79    1  300    0  2.37   3.73  90.6  70.6  83.0   7.7 3.93E-04 1.46E+03
     80    1  300    0  2.37   3.73  86.6  66.6  79.4   7.2 1.33E-04 4.96E+02
     81    1  176    0  2.37   2.19  82.4  62.4  74.4   8.0 4.20E-05 9.19E+01

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM  KG/M3    KG/M2        KG
   5  1376   7.2  17.1  99.8  79.8 110.5  12.5   1.2 3.56E-05 2.84E-03 4.86E+04
  17  4661  23.0  54.5 111.1  91.1 119.8  12.9   3.6 5.84E-05 5.32E-03 2.90E+05
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*!
*TIM 07:40:00 53 30.00 130 53.80
*TRA 346 N31 84 88 1484 4.000 125.096 0.517 7.743
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
84	1	300	0	2.37	3.55	83.3	63.3	73.1	10.3	3.83E-04	1.36E+03
85	1	300	0	2.37	3.55	88.4	68.4	80.9	7.5	2.47E-04	8.78E+02
86	1	300	0	2.37	3.55	94.3	74.3	78.0	16.2	2.06E-04	7.31E+02
87	1	300	0	2.37	3.55	103.0	83.0	97.8	5.2	3.12E-03	1.11E+04
88	1	284	0	2.37	3.36	112.3	92.3	98.6	13.7	1.12E-02	3.77E+04

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
5	1484	7.4	17.6	96.1	76.1	97.1	11.7	6.1	3.87E-05	2.95E-03	5.18E+04
22	6145	30.4	72.0	107.5	87.5	116.3	12.7	4.0	5.42E-05	4.74E-03	3.41E+05

*!
*TIM 08:20:00 53 26.90 130 49.70
*TRA 348 N29 91 95 1422 4.143 300.453 0.467 8.879
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
91	1	300	0	2.37	3.84	114.8	94.8	107.8	7.0	6.63E-03	2.54E+04
92	1	300	0	2.37	3.84	105.3	85.3	102.7	2.6	3.90E-03	1.50E+04
93	1	300	0	2.37	3.84	94.1	74.1	87.8	6.3	1.57E-04	6.02E+02
94	1	300	0	2.37	3.84	89.7	69.7	81.2	8.4	2.59E-04	9.94E+02
95	1	222	0	2.37	2.84	87.1	67.1	78.8	8.2	3.01E-04	8.54E+02

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
5	1422	7.7	18.2	98.8	78.8	104.6	5.5	1.7	2.99E-05	2.36E-03	4.29E+04
27	7567	38.1	90.2	105.7	85.7	115.0	11.9	3.8	4.97E-05	4.26E-03	3.84E+05

*!
*TIM 08:52:00 53 28.20 130 57.10
*TRA 350 N27 98 103 1525 4.042 121.300 0.600 6.737
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M^2	BIOMASS KG
98	1	300	31	2.37	3.49	76.5	56.5	64.3	12.2	1.79E-01	6.24E+05
99	1	300	8	2.37	3.49	92.4	72.4	75.7	16.7	3.21E-04	1.12E+03
100	1	300	0	2.37	3.49	95.8	75.8	76.9	18.9	1.47E-04	5.14E+02
101	1	300	0	2.37	3.49	102.7	82.7	71.0	31.6	4.25E-04	1.48E+03
102	1	300	0	2.37	3.49	113.3	93.3	75.7	37.7	5.40E-04	1.88E+03
103	1	25	0	2.37	0.29	114.3	94.3	30.0	84.2	2.28E-04	6.64E+01

N #	P #	LEN KM	AREA KM^2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M^3	SURF/D KG/M^2	BIOMASS KG
6	1525	7.5	17.7	96.4	76.4	64.3	12.3	0.8	4.64E-04	3.55E-02	6.29E+05
33	9092	45.5	108.0	104.2	84.2	83.6	12.2	1.9	1.12E-04	9.39E-03	1.01E+06

*!
*TIM 09:40:00 53 25.30 130 53.00

```
*TRA     352     N25     106      110    1438    3.992 300.065    0.450    8.871
*LOU
      PO  SPO   PI  MPI    WID    AREA   DEP   COL   DCS   DCB     SURF/D   BIOMASS
       #    #    #    #     KM     KM2     M     M     M     M      KG/M2        KG
     106    1  300    0   2.37    3.66 117.0  97.0  71.7  45.2   4.63E-04  1.69E+03
     107    1  300    0   2.37    3.66 105.3  85.3  79.2  26.1   9.75E-04  3.56E+03
     108    1  300    0   2.37    3.66  98.4  78.4  53.6  44.8   2.14E-04  7.84E+02
     109    1  300    0   2.37    3.66  92.7  72.7  61.1  31.6   3.85E-05  1.41E+02
     110    1  238    0   2.37    2.90  82.7  62.7  77.7   5.0   3.06E-03  8.87E+03

    N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
    #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
    5  1438   7.4  17.5  99.9  79.9  76.0  16.8   4.9 1.07E-05 8.59E-04 1.51E+04
   38 10530  52.9 125.5 103.6  83.6  83.4  12.2   1.9 9.81E-05 8.20E-03 1.03E+06

*! ---------------------------------------------------------------------------
*IEI 85E024.INT
*TIM 16:30:00  53 49.00 130 49.60          ! Browning Entr. short - coverage 1
*TRA     364     26S      34       35     589   1.902  50.881   0.233   8.151
*WID 1.0
*ZER
*LOU
       PO  SPO   PI  MPI    WID    AREA   DEP   COL   DCS   DCB     SURF/D   BIOMASS
        #    #    #    #     KM     KM2     M     M     M     M      KG/M2        KG
       34    1  300    0   1.85    3.32  84.0  64.0  62.6  21.4   2.64E-05  8.77E+01
       35    1  289    0   1.85    3.20  83.2  63.2  79.9   3.3   4.16E-04  1.33E+03

    N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
    #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
    2   589   3.5   6.5  83.6  63.6  78.9   4.4   2.5 3.42E-06 2.18E-04 1.42E+03
    2   589   3.5   6.5  83.6  63.6  78.9   4.4   2.5 3.42E-06 2.18E-04 1.42E+03

*!
*TIM 16:51:00  53 49.60 130 45.80
*TRA     366     25S      38       39     600   1.747 230.988   0.200   8.737
*LOU
      PO  SPO   PI  MPI    WID    AREA   DEP   COL   DCS   DCB     SURF/D   BIOMASS
       #    #    #    #     KM     KM2     M     M     M     M      KG/M2        KG
      38    1  300    0   1.85    3.00  85.9  65.9  88.7  -2.8   2.25E-03  6.76E+03
      39    1  300    0   1.85    3.00  99.2  79.2  93.1   6.1   4.09E-04  1.23E+03

    N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
    #     #    KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
    2   600   3.2   6.0  92.6  72.6  89.4  -1.4   1.1 1.84E-05 1.33E-03 7.98E+03
    4  1189   6.8  12.5  87.9  67.9  87.8  -0.6   1.3 1.11E-05 7.51E-04 9.40E+03

*!
*TIM 17:10:00  53 47.90 130 46.70
*TRA     368     24S      42       44     824   2.498  47.114   0.283   8.817
*LOU
      PO  SPO   PI  MPI    WID    AREA   DEP   COL   DCS   DCB     SURF/D   BIOMASS
       #    #    #    #     KM     KM2     M     M     M     M      KG/M2        KG
      42    1  300    0   1.85    3.12  92.6  72.6  84.9   7.7   3.02E-04  9.42E+02
      43    1  300    0   1.85    3.12  89.4  69.4  77.4  12.0   1.19E-03  3.73E+03
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44	1	224	0	1.85	2.33	72.4	52.4	64.6	7.8	8.87E-03	2.07E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	824	4.6	8.6	85.9	65.9	67.3	8.4	3.7	4.48E-05	2.96E-03	2.53E+04
7	2013	11.4	21.1	87.1	67.1	72.8	6.0	3.0	2.45E-05	1.65E-03	3.47E+04

*!
*TIM 17:33:00 53 48.90 130 42.40
*TRA 370 23S 46 48 630 2.522 230.615 0.283 8.900
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
46	1	30	0	1.85	0.41	72.1	52.1	51.5	20.6	3.35E-03	1.38E+03
47	1	300	0	1.85	4.12	82.1	62.1	49.0	33.2	2.94E-02	1.21E+05
48	1	300	0	1.85	4.12	93.2	73.2	87.3	5.9	2.16E-04	8.91E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	630	4.7	8.7	86.9	66.9	49.3	32.8	1.3	2.13E-04	1.43E-02	1.23E+05
10	2643	16.1	29.7	87.1	67.1	54.5	26.9	1.7	7.94E-05	5.32E-03	1.58E+05

*!
*TIM 17:55:00 53 46.60 130 44.30
*TRA 372 22S 52 54 676 2.413 45.220 0.100 24.135
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
52	1	300	0	1.85	3.67	112.1	92.1	101.0	11.1	1.07E-03	3.94E+03
53	1	300	0	1.85	3.67	102.6	82.6	92.4	10.2	9.95E-04	3.66E+03
54	1	76	0	1.85	0.93	95.2	75.2	87.6	7.6	1.45E-03	1.35E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	676	4.5	8.3	106.0	86.0	95.5	10.2	2.3	1.26E-05	1.08E-03	8.95E+03
13	3319	20.5	38.0	91.2	71.2	56.6	26.0	1.7	6.18E-05	4.40E-03	1.67E+05

*!
*IEI 85E025.INT
*TIM 19:59:00 53 47.50 130 40.50
*TRA 376 21S 3 5 719 2.035 226.537 0.233 8.722
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
3	1	300	0	1.85	2.91	98.8	78.8	83.9	14.9	2.19E-05	6.38E+01
4	1	300	0	1.85	2.91	110.4	90.4	104.0	6.4	5.13E-04	1.49E+03
5	1	119	0	1.85	1.16	113.1	93.1	102.2	10.9	1.10E-03	1.27E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	719	3.8	7.0	106.0	86.0	102.8	8.6	2.8	4.71E-06	4.05E-04	2.83E+03
16	4038	24.3	45.0	93.5	73.5	57.4	25.7	1.8	5.14E-05	3.78E-03	1.70E+05

*!

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*IEI 85E026.INT
*TIM 20:21:00  53 45.60 130 41.50
*TRA    379    20S      2       3    550   1.643  43.100   0.200   8.217
*LOU
      PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #   KM   KM2     M     M     M     M   KG/M2          KG
      2    1  300    0  1.85   3.07 119.4  99.4 104.8  14.6  2.00E-03  6.15E+03
      3    1  250    0  1.85   2.56 108.7  88.7 100.3   8.4  1.43E-03  3.65E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   2   550   3.0   5.6 114.6  94.6 103.2  12.3   1.4 1.84E-05 1.74E-03 9.80E+03
  18  4588  27.3  50.6  95.8  75.8  59.9  25.0   1.7 4.68E-05 3.55E-03 1.80E+05

*!
*TIM 20:40:00  53 46.20 130 38.50
*TRA    381    19S      6       8    632   1.644 223.107   0.200   8.218
*LOU
      PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2          KG
      6    1  300    0  1.85   2.68 100.1  80.1  92.4   7.7  2.95E-04  7.89E+02
      7    1  300    0  1.85   2.68 112.4  92.4  98.6  13.8  2.86E-03  7.65E+03
      8    1   32    0  1.85   0.29 117.2  97.2 102.0  15.2  8.29E-03  2.37E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   3   632   3.0   5.6 106.8  86.8  98.9  13.7   2.2 2.21E-05 1.92E-03 1.08E+04
  21  5220  30.4  56.3  96.9  76.9  62.1  24.4   1.8 4.40E-05 3.39E-03 1.91E+05

*!-------------------------------------------------------------------------------
*TIM 21:40:00  53 49.00 130 49.60          ! Browning Entr. short - coverage 2
*TRA    383    26S     18      19    326   1.902  50.881   0.233   8.151
*ZER
*LOU
      PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2          KG
     18    1  300    0  1.85   6.00  85.7  65.7  70.3  15.4  1.85E-03  1.11E+04
     19    1   26    0  1.85   0.52  77.3  57.3  73.6   3.6  2.67E-04  1.39E+02

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   2   326   3.5   6.5  85.1  65.1  70.4  15.3   1.6 2.66E-05 1.73E-03 1.13E+04
   2   326   3.5   6.5  85.1  65.1  70.4  15.3   1.6 2.66E-05 1.73E-03 1.13E+04

*!
*TIM 22:00:00  53 49.60 130 45.80
*TRA    385    25S     21      23    684   1.747 230.988   0.200   8.737
*LOU
      PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2          KG
     21    1  300    0  1.85   2.63  88.5  68.5  75.2  13.3  5.75E-04  1.51E+03
     22    1  300    0  1.85   2.63 101.2  81.2  90.3  10.9  1.11E-04  2.91E+02
     23    1   84    0  1.85   0.74 104.7  84.7  84.9  19.8  1.26E-03  9.30E+02
```

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	684	3.2	6.0	96.1	76.1	80.1	15.3	1.7	6.00E-06	4.56E-04	2.73E+03
5	1010	6.8	12.5	90.3	70.3	72.3	15.3	1.6	1.59E-05	1.12E-03	1.40E+04

*!
*TIM 22:20:00 53 47.90 130 46.70
*TRA 387 24S 26 28 868 2.498 47.114 0.317 7.888
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
26	1	300	0	1.85	2.96	96.3	76.3	78.4	17.8	1.05E-03	3.12E+03
27	1	300	0	1.85	2.96	94.6	74.6	72.8	21.9	3.57E-03	1.06E+04
28	1	268	0	1.85	2.65	76.5	56.5	70.0	6.5	7.22E-04	1.91E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	868	4.6	8.6	89.6	69.6	73.6	19.2	2.3	2.61E-05	1.82E-03	1.56E+04
8	1878	11.4	21.1	90.0	70.0	73.0	17.3	2.0	2.00E-05	1.40E-03	2.96E+04

*!
*TIM 22:45:00 53 48.90 130 42.40
*TRA 389 23S 31 33 880 2.522 230.615 0.300 8.405
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
31	1	300	0	1.85	2.95	81.6	61.6	77.8	3.8	5.07E-04	1.49E+03
32	1	300	0	1.85	2.95	96.9	76.9	81.8	15.1	1.67E-03	4.92E+03
33	1	280	0	1.85	2.75	102.4	82.4	83.0	19.4	1.85E-03	5.10E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	880	4.7	8.7	93.4	73.4	81.8	15.5	2.9	1.81E-05	1.33E-03	1.15E+04
11	2758	16.1	29.7	91.0	71.0	75.4	16.8	2.2	1.95E-05	1.38E-03	4.11E+04

*!
*TIM 23:10:00 53 46.60 130 44.30
*TRA 391 22S 36 38 719 2.413 45.220 0.250 9.654
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
36	1	300	0	1.85	3.45	115.9	95.9	87.8	28.1	4.52E-03	1.56E+04
37	1	300	0	1.85	3.45	107.1	87.1	95.4	11.7	1.84E-03	6.36E+03
38	1	119	0	1.85	1.37	99.1	79.1	82.4	16.7	2.22E-03	3.04E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	719	4.5	8.3	109.4	89.4	89.1	22.5	1.8	3.38E-05	3.02E-03	2.50E+04
14	3477	20.5	38.0	95.0	75.0	80.6	19.0	2.1	2.32E-05	1.74E-03	6.61E+04

*!
*TIM 23:31:00 53 47.50 130 40.50
*TRA 393 21S 41 43 706 2.035 226.537 0.233 8.722
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
41	1	300	0	1.85	2.97	101.2	81.2	86.0	15.2	7.82E-03	2.32E+04
42	1	300	0	1.85	2.97	113.8	93.8	107.3	6.5	2.10E-03	6.21E+03
43	1	106	0	1.85	1.05	117.0	97.0	111.4	5.5	6.25E-04	6.55E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	706	3.8	7.0	108.9	88.9	90.9	13.2	1.2	4.84E-05	4.31E-03	3.01E+04
17	4183	24.3	45.0	97.2	77.2	83.8	17.2	1.8	2.77E-05	2.14E-03	9.62E+04

```
*!
*TIM 23:51:00  53 45.60 130 41.50
*TRA    395     20S      46       47     567    1.703   49.770    0.217    7.861
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
46	1	300	0	1.85	3.09	121.5	101.5	112.1	9.4	8.50E-03	2.63E+04
47	1	267	0	1.85	2.75	111.2	91.2	103.0	8.2	6.50E-03	1.79E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
2	567	3.2	5.8	116.6	96.6	108.4	8.9	1.5	7.82E-05	7.56E-03	4.41E+04
19	4750	27.4	50.8	99.4	79.4	91.6	14.6	1.7	3.48E-05	2.76E-03	1.40E+05

```
*!
*DAT 10-DEC-85
*TIM 00:11:00  53 46.10 130 38.30
*TRA    397     19S      50       51     600    1.749  231.027    0.200    8.745
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
50	1	300	0	1.85	3.00	104.8	84.8	96.3	8.5	1.59E-03	4.78E+03
51	1	300	0	1.85	3.00	115.8	95.8	109.2	6.6	3.12E-03	9.37E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
2	600	3.2	6.0	110.3	90.3	104.9	7.2	1.9	2.61E-05	2.36E-03	1.41E+04
21	5350	30.7	56.8	100.6	80.6	92.8	13.9	1.7	3.37E-05	2.72E-03	1.54E+05

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*!-------------------------------------------------------------------------
*IEI 85E027.INT
*TIM 05:17:00  53 49.10 130 49.50          ! Browning Entr. short - coverage 3
*TRA    403     26S       1        3     634    2.011   49.729    0.217    9.282
*ZER
*LOU
```

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
1	1	300	1	1.85	3.26	85.0	65.0	70.9	14.1	3.14E-06	1.02E+01
2	1	300	0	1.85	3.26	83.5	63.5	68.9	14.6	2.60E-04	8.50E+02
3	1	34	0	1.85	0.37	73.7	53.7	71.9	1.9	2.87E-04	1.06E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	634	3.7	6.9	83.7	63.7	69.2	13.2	2.7	2.20E-06	1.40E-04	9.66E+02
3	634	3.7	6.9	83.7	63.7	69.2	13.2	2.7	2.20E-06	1.40E-04	9.66E+02

*!
*TIM 05:37:00 53 49.70 130 45.80
*TRA 405 25S 6 8 615 1.812 228.530 0.117 15.532
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
6	1	300	0	1.85	3.03	86.7	66.7	86.0	0.7	2.65E-02	8.02E+04
7	1	300	0	1.85	3.03	99.8	79.8	78.0	21.8	2.31E-03	7.01E+03
8	1	15	0	1.85	0.15	101.8	81.8	99.6	2.2	7.21E-04	1.09E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	615	3.4	6.2	93.5	73.5	85.4	2.4	1.0	1.91E-04	1.41E-02	8.73E+04
6	1249	7.1	13.1	88.3	68.3	85.2	2.5	1.0	9.85E-05	6.73E-03	8.83E+04

*!
*TIM 05:57:00 53 47.90 130 46.70
*TRA 407 24S 11 13 864 2.498 47.114 0.300 8.327
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
11	1	300	0	1.85	2.97	93.2	73.2	77.9	15.2	6.13E-04	1.82E+03
12	1	300	0	1.85	2.97	90.6	70.6	62.1	28.5	3.20E-03	9.52E+03
13	1	264	0	1.85	2.62	73.1	53.1	62.6	10.5	5.57E-04	1.46E+03

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	864	4.6	8.6	86.2	66.2	64.4	24.6	2.4	2.26E-05	1.49E-03	1.28E+04
9	2113	11.7	21.7	87.5	67.5	82.6	5.3	1.1	6.91E-05	4.66E-03	1.01E+05

*!
*TIM 06:24:00 53 48.90 130 42.40
*TRA 409 23S 16 18 812 2.522 230.615 0.283 8.900
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM2	M	M	M	M	KG/M2	KG
16	1	300	0	1.85	3.20	82.6	62.6	76.1	6.5	5.44E-03	1.74E+04
17	1	300	0	1.85	3.20	94.0	74.0	84.0	10.0	6.72E-03	2.15E+04
18	1	212	0	1.85	2.26	99.6	79.6	85.4	14.2	2.52E-04	5.70E+02

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM2	M	M	M	M	KM	KG/M3	KG/M2	KG
3	812	4.7	8.7	91.3	71.3	80.5	8.5	1.8	6.40E-05	4.56E-03	3.94E+04
12	2925	16.4	30.3	88.6	68.6	82.0	6.2	1.3	6.76E-05	4.63E-03	1.41E+05

*!
*TIM 06:49:00 53 46.60 130 44.30
*TRA 411 22S 21 23 668 2.413 45.220 0.217 11.139
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
21	1	300	0	1.85	3.72	113.3	93.3	90.8	22.6	5.45E-04	2.02E+03
22	1	300	0	1.85	3.72	104.3	84.3	84.4	19.9	2.61E-03	9.71E+03
23	1	68	0	1.85	0.84	96.9	76.9	72.5	24.4	1.10E-03	9.28E+02

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	668	4.5	8.3	107.6	87.6	84.5	20.7	2.8	1.75E-05	1.53E-03	1.27E+04
15	3593	20.8	38.6	92.6	72.6	82.2	7.4	1.5	5.46E-05	3.97E-03	1.53E+05

*!
*TIM 07:10:00 53 47.50 130 40.50
*TRA 413 21S 26 28 674 2.035 226.537 0.200 10.176
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
26	1	300	0	1.85	3.11	101.0	81.0	96.6	4.4	2.19E-04	6.80E+02
27	1	300	0	1.85	3.11	111.7	91.7	83.5	28.2	2.09E-03	6.50E+03
28	1	74	0	1.85	0.77	114.2	94.2	84.6	29.6	3.46E-02	2.65E+04

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	674	3.8	7.0	107.2	87.2	84.6	28.8	3.3	5.53E-05	4.82E-03	3.37E+04
18	4267	24.6	45.6	94.9	74.9	82.7	11.3	1.8	5.48E-05	4.10E-03	1.87E+05

*!
*TIM 07:30:00 53 45.60 130 41.50
*TRA 415 20S 31 32 600 1.643 43.100 0.217 7.585
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
31	1	300	0	1.85	2.82	118.9	98.9	107.9	11.0	1.59E-03	4.49E+03
32	1	300	0	1.85	2.82	109.0	89.0	100.4	8.6	9.99E-04	2.82E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
2	600	3.0	5.6	113.9	93.9	105.0	10.1	1.3	1.38E-05	1.30E-03	7.31E+03
20	4867	27.7	51.2	97.0	77.0	83.5	11.2	1.8	4.93E-05	3.79E-03	1.94E+05

*!
*TIM 07:47:00 53 46.20 130 38.50
*TRA 417 19S 35 37 696 1.644 223.107 0.233 7.044
*LOU

PO #	SPO #	PI #	MPI #	WID KM	AREA KM2	DEP M	COL M	DCS M	DCB M	SURF/D KG/M2	BIOMASS KG
35	1	300	0	1.85	2.43	101.0	81.0	93.7	7.3	1.37E-03	3.34E+03
36	1	300	0	1.85	2.43	113.1	93.1	101.0	12.1	4.84E-03	1.18E+04
37	1	96	0	1.85	0.78	118.6	98.6	101.0	17.6	1.14E-02	8.88E+03

N #	P #	LEN KM	AREA KM2	DEP M	COL M	DCS M	DCB M	L/C KM	VOL/D KG/M3	SURF/D KG/M2	BIOMASS KG
3	696	3.0	5.6	108.6	88.6	100.0	13.5	2.1	4.80E-05	4.25E-03	2.40E+04
23	5563	30.7	56.9	98.1	78.1	85.3	11.5	1.8	4.91E-05	3.84E-03	2.18E+05

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*!-------------------------------------------------------------------------
*TIM 08:44:00  53 49.10 130 49.50          !  Browning Entr. short - coverage 4
*TRA    419     26S      45       47     714   2.011  49.729   0.250   8.045
*ZER
*LOU
      PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
       #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
      45    1  300    0  1.85   2.90  87.8  67.8  58.7  29.1 3.48E-04 1.01E+03
      46    1  300    0  1.85   2.90  87.6  67.6  28.2  59.5 1.68E-03 4.87E+03
      47    1  114    0  1.85   1.10  81.0  61.0  75.4   5.6 5.08E-04 5.59E+02

   N     P  LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #   KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   3   714  3.7   6.9  86.6  66.6  37.1  50.0   2.2 1.40E-05 9.33E-04 6.43E+03
   3   714  3.7   6.9  86.6  66.6  37.1  50.0   2.2 1.40E-05 9.33E-04 6.43E+03

*!
*TIM 09:07:00  53 49.70 130 45.80
*TRA    421     25S      50       52     688   1.812 228.530   0.217   8.363
*LOU
      PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
       #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
      50    1  300    0  1.85   2.71  87.6  67.6  45.8  41.8 1.21E-03 3.28E+03
      51    1  300    0  1.85   2.71 102.2  82.2  74.5  27.7 3.04E-02 8.25E+04
      52    1   88    0  1.85   0.79 105.3  85.3 100.6   4.7 1.09E-04 8.63E+01

   N     P  LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #   KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   3   688  3.4   6.2  96.2  76.2  73.4  28.3   2.1 1.81E-04 1.38E-02 8.58E+04
   6  1402  7.1  13.1  91.2  71.2  70.9  29.8   2.1 9.88E-05 7.04E-03 9.23E+04

*!
*TIM 09:28:00  53 47.90 130 46.70
*TRA    423     24S      55       57     857   2.498  47.114   0.283   8.817
*LOU
      PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
       #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
      55    1  300    0  1.85   3.00  96.6  76.6  90.8   5.8 9.94E-03 2.98E+04
      56    1  300    0  1.85   3.00  94.7  74.7  89.4   5.3 1.15E-02 3.46E+04
      57    1  257    0  1.85   2.57  76.9  56.9  71.3   5.6 2.95E-03 7.57E+03

   N     P  LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D    SURF/D  BIOMASS
   #     #   KM  KM2     M     M     M     M    KM   KG/M3    KG/M2        KG
   3   857  4.6   8.6  90.0  70.0  88.1   5.5   1.9 1.20E-04 8.40E-03 7.20E+04
   9  2259 11.7  21.7  90.7  70.7  78.4  19.1   2.0 1.07E-04 7.58E-03 1.64E+05

*!
*TIM 09:54:00  53 48.90 130 42.40
*TRA    425     23S      59       62     962   2.522 230.615   0.283   8.900
*LOU
      PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
       #    #    #    #    KM    KM2     M     M     M     M    KG/M2        KG
      59    1   62    0  1.85   0.56  72.3  52.3  65.8   6.5 4.87E-03 2.72E+03
      60    1  300    0  1.85   2.70  82.8  62.8  78.4   4.4 4.05E-03 1.09E+04
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     61    1  300    0  1.85   2.70  96.3  76.3  84.7  11.5  8.57E-04  2.31E+03
     62    1  300    0  1.85   2.70 103.4  83.4  37.6  65.8  3.17E-03  8.55E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   4   962   4.7   8.7  92.7  72.7  63.3  26.7   2.1 3.90E-05 2.83E-03 2.45E+04
  13  3221  16.4  30.3  91.3  71.3  76.5  20.1   2.0 8.73E-05 6.22E-03 1.89E+05

*!
*TIM 10:20:00  53 46.60 130 44.30
*TRA    427    22S     65     67    660   2.413  45.220   0.217  11.139
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2       KG
     65    1  300    0  1.85   3.76 116.5  96.5 109.7   6.8  4.61E-04  1.73E+03
     66    1  300    0  1.85   3.76 107.5  87.5  97.1  10.5  4.53E-04  1.70E+03
     67    1   60    0  1.85   0.75 100.2  80.2  91.8   8.4  2.60E-04  1.95E+02

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   3   660   4.5   8.3 110.9  90.9 102.8   8.6   2.1 4.83E-06 4.39E-04 3.63E+03
  16  3881  20.8  38.6  95.5  75.5  77.0  19.9   2.1 6.60E-05 4.98E-03 1.92E+05

*!
*TIM 10:40:00  53 47.50 130 40.50
*TRA    429    21S     70     72    712   2.035 226.537   0.250   8.141
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2       KG
     70    1  300    0  1.85   2.94 103.3  83.3  96.7   6.6  3.45E-03  1.02E+04
     71    1  300    0  1.85   2.94 114.9  94.9 105.9   9.0  2.81E-04  8.27E+02
     72    1  112    0  1.85   1.10 117.5  97.5 113.2   4.3  6.63E-04  7.28E+02

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   3   712   3.8   7.0 110.4  90.4  98.4   6.6   1.1 1.86E-05 1.68E-03 1.17E+04
  19  4593  24.6  45.6  97.8  77.8  78.2  19.1   2.0 5.76E-05 4.48E-03 2.04E+05

*!
*TIM 11:03:00  53 45.60 130 41.50
*TRA    431    20S     75     76    589   1.643  43.100   0.200   8.217
*LOU
     PO  SPO   PI  MPI   WID   AREA   DEP   COL   DCS   DCB    SURF/D   BIOMASS
      #    #    #    #    KM   KM2     M     M     M     M   KG/M2       KG
     75    1  300    0  1.85   2.87 121.9 101.9 114.9   6.9  2.44E-03  6.99E+03
     76    1  289    0  1.85   2.77 112.2  92.2 105.5   6.7  3.25E-03  8.99E+03

   N     P   LEN  AREA   DEP   COL   DCS   DCB   L/C    VOL/D   SURF/D  BIOMASS
   #     #    KM  KM2     M     M     M     M    KM   KG/M3   KG/M2       KG
   2   589   3.0   5.6 117.1  97.1 109.6   6.8   1.6 2.92E-05 2.84E-03 1.60E+04
  21  5182  27.7  51.2  99.9  79.9  80.5  18.2   2.0 5.38E-05 4.30E-03 2.20E+05

*!
*TIM 11:21:00  53 46.20 130 38.50
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*TRA 433 19S 79 81 640 1.644 223.107 0.200 8.218
*LOU

PO	SPO	PI	MPI	WID	AREA	DEP	COL	DCS	DCB	SURF/D	BIOMASS
#	#	#	#	KM	KM^2	M	M	M	M	KG/M^2	KG
79	1	40	0	1.85	0.35	100.6	80.6	94.0	6.5	6.39E-04	2.25E+02
80	1	300	0	1.85	2.64	103.8	83.8	88.1	15.8	2.09E-02	5.54E+04
81	1	300	0	1.85	2.64	116.1	96.1	69.5	46.6	4.20E-03	1.11E+04

N	P	LEN	AREA	DEP	COL	DCS	DCB	L/C	VOL/D	SURF/D	BIOMASS
#	#	KM	KM^2	M	M	M	M	KM	KG/M^3	KG/M^2	KG
3	640	3.0	5.6	109.4	89.4	85.0	20.9	1.1	1.32E-04	1.18E-02	6.67E+04
24	5822	30.7	56.9	100.8	80.8	81.5	18.9	1.8	6.24E-05	5.04E-03	2.87E+05